No. 97-293 C

(Filed: August 22, 2000)

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ENERGY CAPITAL CORP., as General Partner of ENERGY CAPITAL PARTNERS LIMITED PARTNERSHIP *

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Plaintiff,

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v.

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THE UNITED STATES,

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Defendant.

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Lost Profits for Breach of Contract; Causation; Foreseeability; Reasonable Certainty; Discounting to Present Value; Date of Discounting; Rate of Discount; Mitigation; Reliance Damages; Rule 52(c), Standard, Procedure; Adverse inference for failure to call witness; Judicial Notice of interest rates.

Michael S. Gardener, Boston, MA, counsel of record for plaintiff. *R. Robert Popeo*, *Beth I.Z. Boland*, and *Laurence A. Schoen*, Boston, MA, of counsel.

Mark. L. Josephs, Commercial Litigation Branch, Civil Division, U.S. Department of Justice, Washington, DC, for defendant, with whom were *David W. Ogden,* Assistant Attorney General; *David M. Cohen*, Director; and *Jeffrey A. Belkin* and *Allison A. Page*, of counsel. *Carole W. Wilson, Angelo Aiosa,* and *Kathleen Burtschi,* Department of Housing and Urban Development, of counsel.

OPINION AND ORDER

DAMICH, Judge.

The central issue in this case is the difficult question of whether lost profits of a new venture may be obtained from the United States in a breach-of-contract case. In the Court's view, precedent does not preclude, as a matter of law, this Court from awarding lost profits when the Plaintiff was involved in a new venture, and it does not preclude awarding lost profits in the context of a new venture, when the Defendant is the United States. True, lost profits are rarely awarded against the United States. "Rarely," however, is not the same as "never." The Court finds that this is one case where the Plaintiff is entitled to an award of lost profits. Therefore, the Court awards $8.787 million as the present value for the Plaintiff's lost profits.

The contract permitted the Plaintiff to originate up to $200 million in loans for energy-efficiency improvements for government-assisted housing. The Defendant conceded that it breached this contract by terminating it.

Even when the Plaintiff is involved in a new venture and when the Defendant is the United States, the Court's inquiry is the same: An award of lost profits is appropriate when the Plaintiff has established causation, foreseeability, and reasonable certainty. The Plaintiff has met its burden of proof for these elements by showing that the new venture would have succeeded.

In making the award, the Court finds that the Plaintiff could not mitigate its damages because the government's active consent to the program was a fundamental requirement for success. The amount of lost profits, however, is adjusted to discount the amount to a present value.

Although the Plaintiff is entitled to the award of lost profits, in order to promote judicial efficiency, the Court finds in the alternative that the appropriate measure of reliance damages is $876,567.09. .

The Court's findings and analysis are presented in the following sections of the opinion:

I. Background

A. Multifamily Housing Industry

The Department of Housing and Urban Development ("HUD") subsidizes and regulates a significant portion of the multifamily housing industry. The Federal Housing Administration ("FHA"), a section within HUD, provides financial assistance to various types of housing programs. The types of programs are named for various sections of the Housing Act of 1959. In this case, the parties are concerned with properties with loans insured under Section 236, under Section 221(d)(3), and under Section 221(d)(4), collectively referred to as the "Field Notice" properties. In addition, Section 202 properties are in issue.

The Field Notice properties share many common features. All of the eligible Field Notice properties have a mortgage that was insured by FHA. The mortgage and accompanying FHA regulations restrict the owners' rights in using the properties.

The regulations inhibit the owners' ability to encumber the property beyond the HUD-insured mortgage. Tr. 2364.[1] Because owners could not place an additional mortgage on their property, owners had difficulty raising capital to make physical improvements to the property. Without a security interest, lenders were unwilling to risk their money in a loan to a property with an FHA-insured mortgage.

As even the Defendant admits, the multifamily housing in HUD's portfolio consumed an inefficient amount of energy. Many HUD properties were constructed during the late 1960's or early 1970's when neither the government nor the builder was concerned with long-term energy costs. HUD housing was frequently built under the most stringent cost restraints. A consequence of these budgetary limits is that HUD housing is commonly heated with electric baseboard resistance heating. This type of heating is very cheap to install, but very expensive to operate currently. The Department of Energy ("DOE") and HUD have recognized the need for improved energy efficiency in HUD's multifamily portfolio in several publications.

In particular, the FHA regulations discouraged improvements in the energy efficiency of multi-family housing in HUD's portfolio. The regulations interfere with a lender's ability to have a security interest in the property. This restriction caused lenders to charge a higher interest rate or to not offer a loan at all. Neither was a good alternative to the owner of the property. Thus, very little HUD-insured housing received any financing for energy efficiency during the 1980's and 1990's.

Section 202 properties are in issue because like the Field Notice properties, they needed improvements for energy efficiency but had difficulties obtaining capital because

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[1] The following abbreviations are used: "Tr." for trial transcript, "PX" for Plaintiff's Exhibit, and "DX" for Defendant's Exhibits. Although the AHELP Agreement was PX 1 and DX 1, for simplicity the Court cites it by section number.

The Court's citation to a particular passage in the transcript or to a specific exhibit is not intended to imply that the evidentiary support is found only in that location. Other testimonial or documentary evidence may supplement the evidence cited in the opinion.

of the regulations. Section 202 properties are properties owned by non-for-profit entities for the benefit of either elderly or handicapped residents.

B. History of Energy Capital Partners

The multifamily housing sector was not the only industry beset with problems of energy inefficiency. As interest in improving energy efficiency became more widespread, Energy Capital Partners was formed in the middle of 1994, to take advantage of a perceived financial opportunity to market energy-efficiency improvement measures. Energy Capital provided financing to allow various institutions to optimize their energy consumption. For example, Energy Capital provided financing to college dormitories and to commercial office buildings.[2] Energy Capital originated approximately $250 million in loans in these sectors.

During the course of its business, Energy Capital discovered a possible opportunity to make loans for the HUD-insured portfolio. Energy Capital recognized that there was a significant need for energy improvements within this type of property and that the primary obstacle to making a loan was the regulatory barriers, as mentioned. Energy Capital believed that if it could solve the regulatory problem, then it could originate a significant amount of loans. Energy Capital's efforts eventually became the Affordable Housing Energy Loan Program, which is known by its acronym AHELP.

To promote its efforts with AHELP, Energy Capital assembled a team of consultants to assist it. These included Recapitalization Advisors, Energy Investments, Housing Partners, and several law firms.

Recapitalization Advisors, which was founded by David Smith, has extensive knowledge about the properties within the HUD-assisted portfolio. Since these properties were going to be the customers for Energy Capital's AHELP business, Recapitalization Advisors explored the potential scope of the marketplace.

Energy Investment is an engineering consulting company specializing in assisting building owners to identify, to design, and to implement capital improvements to reduce the energy costs of their buildings. Energy Investment has the technical knowledge about energy-efficiency measures.

Housing Partners, Inc. is a consulting firm for the affordable housing industry. Its clients include public sector and private sector institutions in Massachusetts. Several of its principals administered a program to increase the energy efficiency of apartments owned by the Massachusetts Housing Finance Administration (MHFA). Energy Capital hoped to use Housing Partners' expertise with government agencies in working with HUD.

II. AHELP

[2] The Plaintiff and the Defendant, however, dispute whether commercial and institutional lending is analogous to residential lending, which is the concern of the contract here.

A. General Explanation of the Agreement

On September 3, 1996, Nick Retsinas, the Assistant Secretary for Housing and the Federal Housing Commissioner, signed the AHELP Agreement. The agreement between Energy Capital Partners and HUD followed approximately 15 months of negotiations. Under the AHELP Agreement, Energy Capital could originate loans for 3 years or until a cap of $200 million in loan originations was reached. In exchange, HUD promised to treat AHELP loans in ways that gave Energy Capital, as a lender, a security for its loan and also that gave the property owners an incentive to apply for the loan.

To understand the issues in this case, several different aspects of the AHELP Agreement must be kept in mind. These provisions relate to: (1) the type of energy-efficiency improvements that could be made; (2) the eligibility of Section 202 properties; (3) the cross-default and springing subordinated lien; (4) HUD's ability to review loans; (5) the treatment of debt service on the AHELP loan; (6) the interest rate on an AHELP loan; and (7) the testing of energy-improvement measures.

1. The Type Of Energy-Efficiency Improvements

The AHELP contract expressly refers to five core improvements for which Energy Capital could make loans. HUD's approval of any loans for these five core measures was given in the AHELP contract; individual review of loans for these improvements was not necessary. The AHELP Agreement also provided that HUD could approve loans for other types of energy-efficiency improvements on a case-by-case basis.

2. Section 202 Properties

The AHELP Agreement also envisioned that Section 202 properties would also be eligible. Section 202 properties are owned by not-for-profit entities whose mortgage is held by HUD. The opinion discusses this issue in more detail in Section VII.C.3., below.

3. Cross-Default And Springing Subordinated Lien

The AHELP Agreement's innovative solution to the regulatory obstacles was the cross-default provision and the springing subordinated lien. The cross-default provision required that if the property owner defaulted on the energy efficiency loan, then the first mortgage, which is the FHA-insured mortgage, would also go into default. Without a cross-default provision, property owners could have used all their savings to pay only the loan insured by FHA. Through this cross-default provision, property owners would have an incentive to pay both the energy improvement loan and the principal loan.

The springing subordinated lien gives Energy Capital, as a lender, security that its loan would be paid off. If there were a default under the first mortgage, the first mortgagee may file a claim with the FHA for payment. (The FHA typically pays approximately 95 to 99 cents on the dollar.) After the first mortgage is assigned to HUD and the FHA Fund reimburses the mortgagee, Energy Capital's loan "springs" into first position and has a priority ahead of the FHA mortgage. If there were a default, Energy

Capital had the property as a security interest. It should be noted that Energy Capital's agreement with Fannie Mae required that the AHELP loan contain the springing subordinated lien provision and the cross-default provision.

4. HUD's Review

The AHELP Agreement also provided that HUD had the authority to review the initial 6 AHELP loans. Beside the review of the initial 6 loans, HUD could also review 5 of the next 50 AHELP loans. Finally, HUD could review as many as 15 AHELP loans in the next 150 AHELP loans. The HUD review was to ensure that Energy Capital was complying with the AHELP Procedures Manual. These reviews included the possibility of a more detailed audit review.

HUD also established three national processing centers to review AHELP loans in a more streamlined fashion. For these AHELP loans, the processing center had 10 days to complete its review. By limiting HUD's review to only 10 days, Energy Capital hoped to avoid problems with the HUD bureaucracy, which was notoriously slow in responding to owners' requests. Casimir Kolaski, a former HUD official who was to lead the national processing center in Boston, testified that this review was a "checklist." Tr. 775. By providing for only a "checklist" review, AHELP effectively assigned the responsibility of processing and underwriting the AHELP loans to Energy Capital.

5. The Treatment of Debt Service

Another important innovation in the AHELP Agreement was that HUD agreed that the debt service on an AHELP loan would be a normal operating expense. The AHELP Agreement also provided that the application fees paid by the owners could be paid for out of revenues received for operating the property. Tr. 2367. These provisions ensured that the owner would not have to contribute any of its own money to apply for the AHELP loan.

6. Interest Rate

The AHELP Agreement set the interest rate at which Energy Capital would lend money at the Treasury rate plus 3.87 percent. Energy Capital had agreed in principle to obtain capital from Fannie Mae at the Treasury rate. As the AHELP loans were repaid, Fannie Mae would be repaid at the Treasury rate plus 1.87 percent. Energy Capital would keep the remaining 2 percent over Treasury rate as its profit on the loan. Energy Capital refers to this 2 percent (the difference between its capital inflow and capital outflow) as its "spread." The spread formed the basis of Energy Capital's revenue.[3]

The loans were designed to improve the net operating income ("NOI"). Energy Capital would structure the loan, considering the interest rate, the cost of installing the

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[3] In addition to income from this spread, Energy Capital would receive certain incidental fees for processing the loan.

energy improvement, and the expected savings in utilities expenditure, to cover 110 percent of the annual loan payment, so that the energy loan would pay for itself and give the owner an additional savings. The energy loans were generally restricted to a maximum term of 12 years. Since the term was set at a maximum of 12 years and the debt service coverage had to equal 110 percent, an energy improvement generally had to have a payback of 5.5 years or less.[4] The improved NOI would be the incentive for owners to participate in the AHELP Program. Further, it was anticipated that the improved NOI would be an incentive for private holders of first mortgages to consent to an AHELP loan.[5]

7. The Testing Of Energy-Improvement Measures.

The AHELP Agreement also provided for testing of the energy-efficiency equipment to determine whether it was operating correctly. The first test was made immediately following installation. After 3 years, an engineer would again test the energy-efficiency equipment. Energy Capital was required to escrow money into a fund, which the parties called the downstream verification fund, to correct any deficiencies in operating efficiencies. In checking the efficiency of the equipment, the verification procedure is tantamount to a manufacturer's warranty. It is especially important to note that the downstream verification protocol did not guarantee savings or compare utility bills.[6] The Program Agreement provides that Energy Capital will verify either all or a sample of the installed equipment.

B. Process to Originate an AHELP Loan

Originating an AHELP loan consisted of 3 separate phases. Phase 1 began when Energy Capital received an application called the Property Eligibility Checklist ("PEC"), and ended when Energy Capital issued a preliminary acceptance. Phase 2 began with the issuance of a preliminary acceptance and concluded when Energy Capital issued a commitment. Phase 3 began with the owner's acceptance of the commitment and

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[4] The payback period depends, in part, on the interest rate. With hindsight, the parties recognize that after the AHELP Program was agreed to, the interest rates declined. The decline in interest rates meant that projects with a payback of 5.9 years could also comply with the debt service coverage requirement of 110 percent. The difference between 5.5 years and 5.9 years is immaterial.

[5] The willingness of owners and first mortgagees to participate in the AHELP Program is discussed in great detail in Section VII.E., below.

[6] The parties debate the significance of the failure to guarantee energy savings. The Plaintiff contends that (a) it was impossible to guarantee savings because savings depended upon utility rates which varied, and that (b) the industry's practice was to guarantee operational efficiency, not to guarantee savings. In contrast, the Defendant contends that owners would be less interested in participating in the AHELP Program without a guarantee of utility savings.

concluded with the post-closing activities of Energy Capital. Within each of the phases just described, there were discrete smaller steps.

Phase 1 starts with the receipt of a PEC from the owner. The PEC contains certain information about the physical structure and energy systems of the property. Based upon this preliminary data, Energy Capital determines whether an AHELP loan was viable. “Viable” means that the proposed improvement would generate enough savings to pay for itself within the payback time period. If the property were viable, the owner selects an Energy Service Company to conduct an energy audit. The energy audit would confirm the usefulness, from an engineering perspective, whether it was appropriate to install the energy-efficiency measure. After the energy audit was received by Energy Capital, Energy Capital could accept the energy audit, request additional information or decline to proceed with the project. Concurrent with the energy audit, the owner submits a pre-application package. The pre-application package was used to investigate the financial stability of the property. Once this information was confirmed by Energy Capital, Energy Capital issues a preliminary acceptance. Assuming that the property was accepted, the pre-screening phase is completed.

After the property received this initial approval, the property owner submits a formal AHELP application with an application fee. During this second phase, Energy Capital conducts a more detailed review of the information provided in the pre-screening stage. At any point during this application review, Energy Capital could request additional information or reject the property. Concurrently, an owner could withdraw from the process at anytime. Phase 2 concludes in Energy Capital issuing an AHELP commitment when Energy Capital and the property owner have agreed to a loan.

Phase 3 is devoted to the actual financing. Most of the steps within Phase 3 are pointed towards closing the loan. Before a loan can actually close, Energy Capital submits the loan to HUD for a limited review as provided by the contract. See AHELP Agreement, Section 3.3(d) (restricting loan review to 10 days). After the loan is closed, Energy Capital provides the appropriate documentation to HUD. Energy Capital also arranged to sell the loan to Fannie Mae. After loan closing, Energy Capital will continue to service the loan, including overseeing the construction, administering the loan proceeds, and receiving the payments of the loan.

III. Performance Under and Termination of AHELP

The parties executed the AHELP Agreement in September 1996. Its maximum duration was 3 years. HUD terminated the AHELP Program on February 14, 1997, approximately 5½ months later. In those 5½ months, Energy Capital did not originate any loans. Notwithstanding this fact, Energy Capital asserts that its progress towards originating $200 million of loans was remarkable. The United States disputes Energy Capital’s characterization of its accomplishments. Regardless of the disputed characterizations, the parties agree with certain facts related to Energy Capital’s performance under AHELP.

Shortly after execution of the AHELP Agreement, HUD issued a notice to the HUD field staff for multifamily housing, and owners and managing agents of HUD-insured and HUD-assisted properties. In this Field Notice, HUD reviewed the need for energy-efficiency measures and the obstacles to financing those improvements with subsidies from the federal government. The notice listed funding mechanisms other than the federal government. This list included the AHELP Program and announced that the Department had "endorsed" the AHELP Program. The Field Notice suggests that interested staff or property owners could contact representatives of Energy Capital for information regarding AHELP. The Field Notice was signed by Retsinas.

A training program for HUD officials and staffers in the HUD field offices was one of the earliest events in implementing the AHELP Program. This training occurred on October 31, 1996, approximately 2 months after the signing of the AHELP Agreement. Witnesses from Energy Capital testified that HUD had asked that Energy Capital train its field office representatives before marketing the AHELP Program to building owners, so that the field staff would be knowledgeable and capable of responding to inquiries from the property owners. This training program was directed mostly to the people working in the regional processing centers.

Kolaski, who was to lead the Boston regional processing center, arranged to have a second training program at the Northeast Matrix Leadership Conference on November 18. Kolaski believed that the HUD properties in the Northeast would especially benefit from the AHELP Program because of high heating costs. Kolaski was so confident in the Program's usefulness that he expected that his regional processing center alone would originate loans totaling $200 million — the total maximum allowed under the AHELP Agreement.

After the training programs for HUD staff members, Energy Capital began to market the AHELP Program to property owners and managers. In particular, Energy Capital focused on the two largest owners of multifamily housing in HUD's portfolio: Insignia and National Housing Partners ("NHP").[7] Together, these two entities controlled nearly 1000 properties in the HUD portfolio. Energy Capital representatives and David Smith from Recapitalization Advisors presented the AHELP Program to representatives from Insignia and NHP at two different meetings in November 1996. A representative from Insignia, Michael Bickford, and a representative from NHP, Eleanor Zampone, testified at trial. Both testified that their organizations were very interested in the AHELP Program. A more detailed recounting of the reactions of these two owners is set out below in Section VII.E.1. .

In addition to making presentations for Insignia and NHP, Energy Capital also made sales presentations to other owners/managers in the Boston area. These presentations prompted owners to apply for AHELP loans by submitting PECs.

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[7] Energy Capital was following an implementation plan developed by Recapitalization Advisors. PX 37.

In conjunction with its activities directed to owners, Energy Capital also developed its internal resources to support the AHELP Program. For example, Energy Capital retained a search firm to hire a chief operating officer, a chief underwriter, a head of sales, and a sales force. Energy Capital selected Energy Investment, Inc. as the engineering firm that would evaluate the properties for it. As Energy Capital had already received PECs, it retained six Energy Service Companies ("ESCOs") to conduct energy audits.

By January 7, 1997, Energy Capital had received 63 PEC forms. Energy Capital determined that 46 of the 63 PECs were for properties located in cold climates. Of the 46 properties in cold climates, 29 (or 63 percent of cold weather properties) were heated by electricity. Energy Capital determined that 25 properties were energy viable. The remainder of the properties were not appropriate for the AHELP Program.[8]

In February 1997, shortly before the AHELP Program was terminated, Energy Capital had received 123 PECs.[9] Energy Capital completed the pre-screening process for approximately 22 properties. A contractor to perform the energy audit was chosen on 6 properties.

The property leading in the progression of steps was a property known as Pine Estates II, which was owned by an investor in Energy Capital. Because of Energy Capital's close relationship with the owner, Energy Capital was using Pine Estates II as a prototype. This property was the only property to undergo an energy audit, performed by an energy service company, Energy USA. Energy Capital's independent engineer, Energy Investment, rejected the energy audit twice.

The parties draw different conclusions from the two rejections. According to the Plaintiff, ESCOs follow different standards and different procedures in performing energy audits. Energy Capital hoped to avoid variations by establishing a standard procedure using the Pine Estates II property as a model. Energy Capital's concern for a universal form led it to review the energy audit slowly and vigorously. In contrast, according to the United States, the time-consuming process of submitting the energy audit of Pine Estates II shows that the AHELP loan origination process was cumbersome and inefficient. It is not disputed that the energy audit was not completed successfully before the AHELP Program was terminated.

On February 7, 1997, *The Wall Street Journal* published an article on the front page that stated Energy Capital Partners received the contract to make HUD properties more

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[8] Some properties, for example, requested improvements that were not core improvements. Energy Capital explained that it was soliciting information about interest in non-core improvements to gather data to return eventually to HUD. Energy Capital expected that HUD would approve AHELP loans for non-core improvements.

[9] The data contained in these 123 PECs is the foundation for the report prepared by the expert witnesses. This data was supplemented by information received by Energy Capital after termination.

energy efficient in exchange for significant fund-raising efforts for President Clinton by principals of Energy Capital. On Monday, February 10, 1997, *The Wall Street Journal*, in its Corrections & Amplifications Section, noted that the first article failed to state that "no one has said that HUD officials knew that the two men were major Democratic fund-raisers."

Before the publication of *The Wall Street Journal* article, HUD did not contemplate terminating the AHELP Agreement. HUD admits that Energy Capital did not breach the AHELP Agreement before the publication of *The Wall Street Journal* article.

Late in the afternoon on Friday, February 14, 1997, Retsinas sent, via fax, a letter to Energy Capital terminating the AHELP Agreement. Because of an intervening holiday, Energy Capital did not actually learn of the termination until Tuesday, February 18.

The AHELP Agreement provided that if Energy Capital were in default under the AHELP Agreement, HUD would provide a notice to cure the defect. Energy Capital expected to have 30 days to cure any such defect before the contract was terminated. Notwithstanding this provision, the February 14 termination was effective immediately. It should be noted that the AHELP Agreement did not have a termination for convenience clause.

Also on February 14, 1997 — but before the termination letter was faxed — Energy Capital suggested that HUD take an appropriate amount of time to review the negotiation of the AHELP Agreement. Energy Capital believed that this investigation would prove that there was no improper political influence. After the termination, Energy Capital again proposed that HUD review the circumstances leading up to the AHELP Agreement. Energy Capital asked that HUD reinstate the AHELP Agreement. There was no response to these offers from HUD.

After HUD terminated the AHELP Agreement, Energy Capital began to wind up the AHELP business. Fannie Mae's commitment as a source of capital was contingent on the springing subordinated lien and cross-default provision. Because Energy Capital had lost HUD's agreement on these vital issues, Fannie Mae would not participate with Energy Capital in the Program. The AHELP business ended.

Consequently, Energy Capital instituted the present lawsuit seeking damages.

IV. Parties' Position During Litigation

Primarily, Energy Capital seeks to recover the lost profits that it would have earned but for the breach of the AHELP Agreement by HUD. Energy Capital is pursuing lost profits based on two different projections. Under the first, Energy Capital assumed that the AHELP Program would sell out completely, that is, all $200 million worth of loans would be originated. Under the second, Energy Capital also assumed that the AHELP Program would sell out $200 million worth of loans. Plus, the AHELP Program would be so successful that Energy Capital and HUD would enter into additional agreements to provide more loans. The second model assumes that the universe of HUD-assisted properties that could benefit from energy-efficiency measures was almost unlimited. The lost profits would be restricted primarily by the entry of other competitors into the market for lending money.

For its part, the Defendant admits its liability for breach of contract. The Defendant contends that it is liable only for reliance damages, those damages that Energy Capital incurred while performing under the contract. The United States rejects the claim for lost profit on the ground that the profits are too speculative to be awarded. Each of these approaches is discussed in the following sections.

V. General Law for Lost Profits

"Lost profits are a form of expectancy damages and serve to protect a plaintiff's interest 'in having the benefit of his bargain by being put in as good a position as he would have been in had the contract been performed.' Restatement (Second) of Contracts § 344(a) (1981). Lost profits damages thus serve to provide a plaintiff with those earnings that it would have realized absent the breach." *LaSalle Talman v. United States*, 45 Fed. Cl. 64, 87 (1999).

> In order to recover lost profits as damages for breach of contract, it must first appear that such loss is the immediate and proximate result of the breach. It must also be established that loss of profits in the event of breach was within the contemplation of the contracting parties either (1) because the loss was natural and inevitable upon the breach so that the defaulting party may be presumed from all the circumstances to have foreseen it; or (2) if the breach resulted in lost profits because of some special circumstances, those circumstances must have been known to the defaulting party at the time the contract was entered into. Finally, there must be established a sufficient basis for estimating the amount of profits lost with reasonable certainty.

Chain Belt Co. v. United States, 115 F. Supp. 701, 714, 127 Ct. Cl. 38, 58 (1953).

Thus, within this circuit, there are three elements to a recovery of lost profits: (1) causation, (2) foreseeability, and (3) reasonable certainty. *Id.* These elements are discussed in the opinion below. But, before analyzing each element, the Court will address two precedents on lost profits in this circuit.

The Defendant argues that because Energy Capital was engaged in a new business, any measure of lost profits is unreliable and speculative. The Defendant relies on the first decision by the Court of Claims in *Neely v. United States*, 285 F.2d 438, 443, 152 Ct. Cl. 137, 146 (1961).

> [P]rofits are uncertain; they depend on so many contingencies, especially in a new enterprise, that it is, in most cases, impossible to say that the breach was the proximate cause of the loss of them, or that a profit would have been realized, in any event; nor is there any basis to determine what they might

> have amounted to. This is especially true where the breach occurred before operations had begun.
> ***
> Suffice it to say that almost always, in the case of a new venture, the fact that there would have been a profit, had there been no breach, is too shrouded in uncertainty for loss of anticipated profits to form a reliable measure of the damages suffered.

Id.

Although the United States accurately quotes the passage from *Neely*, the United States downplays the subsequent history in *Neely*. The Court of Claims held that sufficient evidence existed, albeit not in the existing record, that "would furnish some basis for a fairly reliable estimate of what the plaintiff's profits would have been." *Id.*, 285 F.2d at 443, 152 Ct. Cl. at 147. The Court of Claims, then, remanded the case back to the trial commissioner for additional fact-finding.

After remand, the trial commissioner awarded lost profits to the Plaintiff. The Court of Claims affirmed this decision. *Neely v. United States*, 167 Ct. Cl. 407 (1964). *Neely II* permitted an award of lost profits because a third party performed the contract under assignment from the Plaintiff. Therefore, the Court of Claims could determine what lost profits the Plaintiff would have made by assuming that the Plaintiff would have made as much profit as the third-party assignee.

To the United States, *Neely I* and *Neely II* are exceptional cases in that a Plaintiff recovered lost profits only because another party actually performed the contract. The subsequent performance distinguishes these cases from all other cases in which Plaintiffs have claimed lost profits.

The Court does not read *Neely I* and *Neely II* so narrowly. In *Neely I* and *Neely II*, the Plaintiff had the advantage of being able to introduce very persuasive evidence of how it would have performed under the contract. The evidence was the performance of a third party. *Neely I*, 285 F.2d at 443, 152 Ct. Cl. at 147. This evidence met the legal requirement, as established in *Chain Belt Co. v. United States*, 115 F. Supp. at 714, 127 Ct. Cl. at 58, that lost profits be calculated with "reasonable certainty." *Neely I* and *Neely II* did not establish a rule that the only legally sufficient way of establishing "reasonable certainty" would be to introduce evidence of subsequent performance by a third party under the exact same contract.

Together, *Neely I* and *Neely II* refute the argument that lost profits for a new venture are absolutely unavailable. The example from these cases, however, cautions that the proof of these damages is difficult. *See California Federal Bank v. United States*, 43 Fed. Cl. 445, 458 (1999) (discussing *Neely I* and *Neely II*).

The Defendant argues that because AHELP was a new venture, it is impossible to measure lost profits with reasonable certainty. To the Defendant, the newness of AHELP warrants a categorical denial of lost profits. The Plaintiff recognizes that AHELP, because of its springing subordinated lien and cross-default provisions, was a new program. Before AHELP, no program systemically attacked the problem of energy viability within HUD's multifamily portfolio. These innovations make AHELP a new venture.

A new venture must establish its entitlement to lost profits by showing the same elements that any business shows: (1) causation, (2) foreseeability, and (3) reasonable certainty. A new business will probably encounter more difficulty in establishing that its lost profits were reasonably certain. But, this difficulty is a matter of evidence as explained in Robert L. Dunn, *Recovery of Damages for Lost Profits* (5th Ed.) § 4.3.

> Most recent cases reject the once generally accepted rule that lost profits damages for a new business are not recoverable. The development of the law has been to find damages for lost profits of an unestablished business recoverable when they can be adequately proved with reasonable certainty. . . . What was once a rule of law has been converted into a rule of evidence.

Id.

When the law is understood in this way, the other cases on which the Defendant relies are distinguishable. Although non-binding cases from the Court of Federal Claims (or its predecessor, the Claims Court) have relied on *Neely I* to deny recovery of lost profits, the analysis from these cases show an absence of proof. *See Northern Paiute Nation v. United States*, 9 Cl. Ct. 639, 646 (1986) (stating "the problem of speculation is insurmountable"); *L'Enfant Plaza Properties, Inc. v. United States*, 3 Cl. Ct. 582, 590-91 (1983) (describing problems of establishing whether the Plaintiff would have earned any profits). *White Mountain Apache Tribe of Arizona v. United States*, 10 Ct. Cl. 115, 118 (1986), follows the approach taken by *Neely*, but *Neely*, as explained above, does not prohibit the recovery of lost profits absolutely.

In addition to its argument about the incompatibility of lost profits and new ventures, the Defendant also contends that lost profits are particularly limited against the United States. Because Energy Capital, before closing any loan, would have to engage in transactions with other parties (Fannie Mae, property owners, first mortgagees, etc.), the United States characterizes lost profits as a type of "remote and consequential damage."

"'[R]emote and consequential damages are not recoverable in a common-law suit for breach of contract . . . especially . . . in suits against the United States.'" *Wells Fargo Bank, N.A. v. United States*, 88 F.3d 1012, 1021 (Fed. Cir. 1996), quoting *Northern Helex Co. v. United States*, 524 F.2d 707, 720, 207 Ct. Cl. 862, 886 (1975) (alterations in original). The United States, however, implicitly admits that lost profits are available when the Plaintiff overcomes a "difficult burden." Defendant's Amended Proposed Findings of Fact and Conclusions of Law, filed October 19, 1999, page 58.

The restriction to not award "remote and consequential damages" from *Wells Fargo* does not prevent an award of lost profits to Energy Capital here. "*Wells Fargo* stands for the unremarkable proposition that gains which do not flow proximately out of the undertaking of the contract itself are too speculative." *LaSalle*, 45 Fed. Cl. at 88. Energy Capital's claim for lost profits are the profits that it would have made from the loans that are expressly the purpose of the AHELP Agreement. Energy Capital's claim, therefore, is analogous to the Plaintiffs' claims in *LaSalle* and *Glendale v. United States,* 43 Fed. Cl. 390, 397-98 (1999), where those Plaintiffs sought lost profits that "arise from the very subject of the breached portion of the contract." *LaSalle*, 45 Fed. Cl. at 88.

Therefore, since awarding lost profits against the United States in the context of a new venture is not precluded by the cases cited by the Defendant, the Court returns to the issues: whether Energy Capital has established causation, foreseeability and reasonable certainty.

VI. Causation and Foreseeability

A. Causation

1. Law

"Because often many factors combine to produce the result complained of, the causation prong requires the injured party to demonstrate that 'the defendant's breach was a "substantial factor" in causing the injury.'" *California Federal Bank v. United States*, 43 Fed. Cl. 445, 451 (1999) (quoting 5 Arthur L. Corbin, *Corbin on Contracts* § 999 at 25 (1964)).

Citing *Ramsey v. United States*, 101 F. Supp. 353, 357, 121 Ct. Cl. 426, 433 (1951), the Defendant argues for a more strict test for causation. The Defendant proposes that "the cause must produce the effect inevitably and naturally, not possibly nor even probably." *Id.*

The Court holds that *Ramsey* restricts damages only in those cases where the Plaintiff seeks lost profits on "independent and collateral undertakings." *Id.*, 101 F. Supp. at 357-58, 121 Ct. Cl. at 434-35. Analyzing *Ramsey* and other cases, *Wells Fargo*, 88 F.3d at 1022-24, distinguishes between cases where the lost profits were claimed under other contracts and cases where lost profits were claimed directly under the contract with the United States. Because in this case Energy Capital seeks lost profits flowing from the breach of the contract with the United States, *Ramsey* does not impose a high burden with regard to causation.

Although the United States accurately quotes *Ramsey*, *Ramsey* does not seem to have been cited for this proposition by other cases. For example, the Court of Claims quotes *Ramsey* as stating "the natural and probable consequences of the breach complained of [are recoverable,] damages remotely or consequently resulting from the breach are not allowed." *Olin Jones Sand Co. v. United States*, 225 Ct. Cl. 741, 742-43 (1980) (alternations in original).

The understanding of *Ramsey* expressed in *Olin Jones Sand Co.*, seems typical. *Ramsey* relied on *Myerle v. United States*, 33 Ct. Cl. 1 (1897). Yet, *Locke v. United States,* 283 F.2d 521, 526, 151 Ct. Cl. 262, 270 (1960), a case decided after *Ramsey*, also relied on *Myerle* and did not restrict damages to only those damages are "inevitably" caused by the breach. *Locke* states that "[t]he injury may be only indirectly produced but it yet must be capable of being traced to the breach with reasonable certainty." *Id.* By discussing causation with the word "indirectly," *Locke* expands the category of damages that are "caused" by a breach.

For these reasons, this Court rejects the Defendant's argument, based on *Ramsey*, that the Plaintiff must prove that the breached caused its losses "inevitably." Instead, the Court will require the Plaintiff to prove that the breach was a "substantial factor" in causing its losses, the test in the majority of jurisdictions.

2. Analysis

Energy Capital has established that the Defendant's breach was a "substantial factor" in causing it to lose profits. The termination of AHELP prevented the Plaintiff from originating any loans and from receiving any income based on the Agreement..

The Defendant is correct that originating loans depended on the actions of various other parties, including property owners, energy service companies and first mortgagees. Nevertheless, because of the government's termination of AHELP, Energy Capital was not permitted to perform long enough to obtain the necessary agreements. Without the HUD's ongoing support and without an existing contract, contacting third parties was pointless.

Arguments about what third parties would have done if AHELP was not terminated are discussed in more detail under "reasonable certainty." *See* Section VII.E., below.

B. Foreseeability

1. Law on Foreseeability

Compared to the other elements of lost profits, stating the law for foreseeability is much easier. Both parties agree that the controlling case is *Chain Belt Co. v. United States*, 127 Ct. Cl. 38, 58, 115 F. Supp. 701, 714 (Cl. Ct. 1953).

> It must also be established that loss of profits in the event of breach was within the contemplation of the contracting parties either (1) because the loss was natural and inevitable upon the breach so that the defaulting party may be presumed from all circumstances to have foreseen it; or (2) if the breach resulted in lost profits because of some special circumstances, those circumstances must have been known to the defaulting party at the time the contract was entered into.

Id.; *see also California Federal Bank v. United States*, 43 Fed. Cl. at 451 (quoting *Chain Belt*). "[T]he test is an objective one based on what [the breaching party] had reason to foresee." Restatement (Second) of Contracts, § 351 cmt. a. (1981); *see also California Federal Bank v. United States*, 43 Fed. Cl. at 451 (quoting Restatement).

2. Analysis

Energy Capital has established that its loss of profits was foreseeable. The purpose of the AHELP Agreement was to permit Energy Capital to loan money to HUD-supported housing. These loans were conditioned on HUD's approval.

At the time HUD entered into the contract, HUD must have understood that if it terminated the contract, then Energy Capital could not make any loans. If Energy Capital could not make any loans, it could not earn any profits. Additionally, at the time HUD entered into the contract, HUD must have expected that Energy Capital planned to earn a profit.

The Defendant's only attempt to argue against this finding is rather weak. The Defendant offers that because the AHELP Agreement does not provide any remedy in the case of breach, the parties did not contemplate a recovery of lost profits.

As discussed above, the test for foreseeability is objective. Here, even though the AHELP Agreement does not discuss the recovery of lost profits, HUD officials could foresee that a breach by the government would prevent Energy Capital from recovery lost profits.

Accordingly, Energy Capital has established the foreseeability prong. The remaining prong is reasonable certainty.

VII. Reasonable Certainty: Part I - Amount of Loans Originated

A. Introduction

To calculate lost profits, expenses are subtracted from revenue. *Sure-Trip, Inc. v. Westinghouse Eng. and Instr. Serv. Div.*, 47 F.3d 526, 531 (2d Cir. 1995); *Blackmun v. Hustler Magazine, Inc.*, 800 F.2d 1160, 1163 (D.C. Cir. 1986). The revenue for Energy Capital is derived from the loans that it originates plus certain incidental fees for processing the loan applications. The more loans that Energy Capital originates, the greater the income to Energy Capital. The expenses for Energy Capital are those costs incurred for originating the loans. For this case, the Defendant does not challenge the accuracy of Plaintiff's proposed projections about its expenses. Thus, the emphasis is on whether the Plaintiff has convincingly proved how many loans it would originate.

Another consideration is the cash flow or income stream from the loans. AHELP loans were expected to have a 12-year term. Throughout the 12 years, Energy Capital would be receiving a portion of the repayment of the loan with interest.

For the cash-flow projection, the parties presented the opinions of two different experts who reached different conclusions. The main reason for the different conclusions is that each expert assumed that Energy Capital would generate a different number of loans. Accordingly, the Court will now turn to this most contentious point.

B. Overview of Plaintiff's Model

The parties used the same model to predict how many loans would be originated under the AHELP Agreement. (David Smith, from Recapitalization Advisors, first proposed this model, which has four steps.) Step 1 is determining the number of units eligible for an AHELP loan. Step 2 is determining the percentage of properties that would benefit from a technological and economic perspective from increased energy efficiency. The parties refer to this step as determining a property's "energy viability." Step 3 is calculating the percentage of properties that have a willingness to participate. Step 3 is perhaps the most controversial aspect of the model because it estimates the willingness of owners to participate and estimates the willingness of first mortgagees to consent to the AHELP Program. Step 4 is calculating the average loan size. The four numbers are multiplied together to arrive at a product that represents the total amount of loans originated under the AHELP Agreement. Each step in the model is independent of every other step and is considered separately below.

C. Step 1: Eligible Units

In theory, it might be expected that the number of eligible units would not be disputed. A property is either eligible or not eligible. Once all the eligible properties are identified, count them.

This expectation does not hold true for two reasons. First, the parties dispute whether some properties were eligible. The disputed properties are those with tenant-paid utilities and Section 202 properties. (Section 202 properties are those for which the mortgage is actually held by the United States.) Second, even when the parties agree that the properties are eligible, the parties have different amounts.

1. The number of properties agreed to be eligible

The parties agree that the Field Notice properties[10] were eligible. The Plaintiff determined that 7,782 properties were eligible. The Defendant, in contrast, determined that 8,846 properties were eligible.[11] The Court will use 7,782 — the lower figure.

2. Tenant-paid utilities

Within the group of Field Notice properties, some apartments have utilities that are paid for by tenants. The parties dispute whether AHELP anticipated that loans would be made to properties with tenant-paid utilities. Apartments that are heated by electric heat

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[10] The Field Notice properties are those with more than 25 units that were under the Section 221(d)(3), 221(d)(4) with 50 percent or more of Section 8 and Section 236.

[11] The parties used different sources of information to determine the number of eligible units. The source for the Plaintiff's information was HUD's publicly available web site. The Defendant, however, used information provided by the HUD and FHA database. This difference is not significant because the Plaintiff used the lower (more conservative) number.

typically have tenant-paid utilities.[12] Therefore, since Energy Capital intended to focus its lending to properties that have electric heat, Energy Capital could lend to a greater number of properties if properties with tenant-paid utilities were eligible.

But, if the tenants — not the owners — receive the benefits of any energy-improvement measure, as the tenants would when they pay the utility expenses, the owners would have no reason to take on the energy loan, since the incentive for an owner to undertake the obligations of an AHELP loan is to receive the benefit of improved net operating income, which results from energy savings.

The Court rules that properties with tenant-paid utilities were eligible to participate in the AHELP Program. The AHELP Agreement itself says nothing about the eligibility of properties with tenant-paid utilities, but Section II.A of the AHELP Procedures Manual, which is an exhibit to the AHELP Program Agreement, defines the eligible properties and states that "all" "Field Notice" properties are eligible. Because "all" properties is not qualified by a statement that properties with tenant-paid utilities are not eligible, this omission supports the inference that the Procedures Manual means what it says: all properties are eligible.

The Defendant's main argument for excluding properties with tenant-paid utilities is that rent increases were not permitted under the AHELP Agreement. The Defendant argues that if rent increases were not permitted, it is likely that the AHELP Agreement did not intend to include properties with tenant-paid utilities, since property owners would not otherwise have an incentive to obtain AHELP loans.

There are two problems with this argument. First, the AHELP Agreement does not expressly forbid rent increases. Although the HUD employees who negotiated the AHELP Agreement testified that they believed that properties with tenant-paid utilities were not eligible, the Agreement itself does not restrict the eligible properties. The Court cannot rewrite the AHELP Agreement to include unilateral expectations previously unexpressed. *Aerolineas Argentinas v. United States*, 77 F.3d 1564, 1576 (Fed. Cir. 1996); *Southern Pac. Transp. Co. v. United States*, 596 F.2d 461, 466, 219 Ct. Cl. 540, 548 (Ct. Cl. 1979) Second, to the extent that HUD expressed its intentions, a limited form of rent increase is consistent with these expectations. Understanding why rent increases were consistent requires an understanding of how rents are set in some HUD-assisted housing.

The cost of living in a particular apartment unit includes the cost for the physical space of the unit plus the cost of the utilities to support the unit. The term "gross rent"

[12] Metering electrical usage on a per-apartment basis is relatively simple. In contrast, measuring the amount of gas used per apartment is not practicable. Since converting to gas heat from electric heat was a core improvement in the AHELP Program, the parties expected that there would be necessarily a change in that owners would have to pay for the gas.

includes both elements. The gross rent includes the "contract rent" which is the amount of money received by the owner for use of the physical space. In Section 8 subsidized housing, HUD pays some portion of the contract rent and the tenant pays some portion of the contract rent. For apartments with tenant-paid utilities, the tenant is responsible for paying the utility costs. To pay for at least some part of the utility expenses, the Section 8 tenant also usually receives a subsidy, which is known as the personal benefit expense ("PBE").

Readjusting the balance between contract rent and the utility expense is possible and the AHELP Procedures Manual sets out a method of changing the utility allowance. If the owner started to pay for the utility expenses, the contract rent could be increased. Simultaneously, if the tenant did not have to pay for utilities, the PBE could be decreased by the same amount as the rent increase. After these changes, the owner could reap the benefits of energy savings because the owner would be paying for the utilities. In other words, an owner of Section 8 housing with tenant-paid utilities would have an incentive to take out an AHELP loan, because the owner, having taken over the payment of utilities, would realize the same energy savings, and would recover the amount of the PBE, which is based on the pre-energy savings utilities costs, through an increase in contract rent.

Furthermore, HUD would not be disadvantaged. Although HUD would pay for a greater amount of contract rent, this increase would be offset by a decrease in the PBE. The "gross rent" (the total sum expended by HUD for a particular apartment) would not increase. Thus, HUD's expectation that there would be no rent increase would be fulfilled.

In addition, the Court notes that Energy Capital received PECs from property owners with tenant-paid utilities. Energy Capital did not reject these PECs out of hand. This contemporaneous conduct shows that Energy Capital believed, during its performance, that properties with tenant-paid utilities were eligible to participate in the AHELP Program. *See Julius Goldman's Egg City v. United States*, 697 F.2d 1051, 1058 (Fed. Cir. 1983) (stating "A principle of contract interpretation is that the contract must be interpreted in accordance with the parties' understanding as shown by their conduct before the controversy."). Although this factor is not decisive, it does support the Court's finding that the parties intended to include properties with tenant-paid utilities in the AHELP Program.

Finally, it is unlikely that HUD would have found the AHELP Program attractive if properties with tenant-paid utilities were excluded, since excluding properties with tenant-paid utilities would reduce the number of eligible properties by 25 percent. Albert Sullivan, a former HUD official in charge of multifamily housing, testified that within the portfolio of AHELP-eligible properties, more properties had utilities paid by the owner than paid by the tenant. Tr. 3025. This opinion was confirmed by David Smith. DX 62 states that 75 percent of properties with electric heat are tenant paid. Of all the eligible properties, 33 percent had electric heat. Accordingly, per this exhibit, about one quarter of all eligible properties had tenant-paid utilities. A figure of 25 percent is consistent with the testimony of Zappone. She estimated that 20 percent of the properties owned by NHP, and eligible for the AHELP Program, had tenant-paid utilities.

3. Section 202

Turning to whether Section 202 properties are eligible for the AHELP Program, the Court holds that they are.

As has been noted, the primary difference for this case between the Section 202 properties and the Field Notice properties is that the mortgage for Section 202 properties is actually held by the United States, therefore, there is no third party first mortgagee. Without the complication of a first mortgagee, the financing arrangements for Section 202 properties should be easier than for a Field Notice property. For example, the provisions for cross-default and springing subordinated liens, which were intended to keep Energy Capital on par with the first mortgagee, were not necessary for Section 202 properties.

Section 2.1(c) of the AHELP Agreement makes Section 202 properties eligible for an AHELP loan. The text of Section 2.1(c) is set out in the footnote below.[13]

Although the AHELP Agreement on its face states that Section 202 properties are eligible for the AHELP Program, the United States argues that Section 202 properties should not be included because Energy Capital could not make loans to these properties at the time of termination, because, before any loans to Section 202 properties could be made, new legal documents had to be drafted.

When the AHELP Agreement was executed, the documentation for Section 202 properties had not been finalized; nevertheless, Energy Capital evinced a consistent intent to make loans to owners of Section 202 properties. In a letter dated September 27, 1996, Energy Capital sent an introductory letter to HUD about some concerns with the Section 202 properties. Energy Capital submitted a more detailed letter on January 22, 1997.

To support its argument for excluding Section 202 properties, the United States points out that HUD's Office of General Counsel ("OGC") needed to approve any

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[13] Section 2.1(c) provides:

> Notwithstanding any other provision of this agreement, to the contrary, FHA and the lender hereby agree that eligible Developments for AHELP Transactions shall include developments financed under Section 202 of the Housing Act of 1959, as amended . . . . Because Section 202 . . . developments have either direct loans or capital grants from HUD rather than FHA-insured loans, certain elements of this Agreement, the AHELP Loan Documents and the AHELP Procedures Manual must be modified to reflect the structure of 202 . . . transactions. Prior to initiating an AHELP transaction for a Section 202 . . . development, the Lender shall submit document modifications to FHA for review and approval.

modifications to the AHELP documents. The Court finds that this approval would have been obtained in a short amount of time and was not truly an obstacle to including the Section 202 properties.[14] It is unlikely that OGC would have found a problem with the AHELP Program for Section 202 properties because the arrangements are simpler than the arrangements already approved by a different part of OGC. In addition, because Retsinas, the Assistant Secretary for HUD, was interested in seeing the Program succeed, it was unlikely to founder because of legal technicalities.

The Court's holding that Section 202 properties are eligible is consistent not only with the plain language of the AHELP Agreement but also with the Defendant's duty to act in good faith. Once the United States commits in the AHELP Program Agreement that Section 202 properties are eligible, the Defendant has an obligation to make this promise a reality. Accordingly, the Court holds that Section 202 properties are eligible for the AHELP Program.[15]

D. Step 2: Energy Viability

Having determined which properties are eligible, the next step is determining what percentage of the eligible properties would realize utility bill savings through improved energy efficiency, such that the savings would cover the cost of the improvements. The parties refer to this as "energy viability." "Energy viability" combines technological and economic feasibility. The Plaintiff has presented three overlapping methods of determining energy viability.

1. First Method

The first method was a study conducted by Joseph DeManche of Energy Investments, Inc.[16] DeManche attempted to identify the percentage of properties that would "benefit" by converting from electric to gas heat. "Benefit" in this context means that the energy improvement would save enough money to pay for itself during the course

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[14] A different section of OGC approved the AHELP Agreement for the Section 221(d)(3), 221(d)(4) and Section 236 properties. The Defendant did not present any testimony from an attorney from OGC about legal complications for having Section 202 properties be eligible for AHELP. Based on this inference, the Court concludes that there was no serious legal impediment to including Section 202 properties in the AHELP universe.

[15] For completeness, the Court notes that like the number of Field Notice properties, the number of Section 202 properties is also disputed. The Plaintiff submitted evidence to show that there were 2,955 Section 202 properties. Information from the Defendant shows that there were approximately 4,500 Section 202 properties. Again, this difference seems minimal.

[16] The Defendant waived any *Daubert* challenge to DeManche's testimony. *See* Tr. 1209.

of the loan. The amount of energy savings depends on the cost of the improvement, the amount of energy used, and the difference in price between electric heat and gas heat.

The first step in DeManche's analysis was to identify those states that have the coldest weather. DeManche identified these states by using data on heating degree days from the Department of Energy (DOE). Geographic areas are designated as belonging to zones 1 to 5, depending upon the number of degree days. The properties with the highest number of degree days, that is, the properties that have the coldest weather, are classified as zone 1 properties. DeManche focused on states within zones 1 and 2. He focused on the properties in cold-weather climates because Energy Capital intended to emphasize electric-to-gas-heat conversions. This conversion is more feasible economically in a property that spends a great amount of money on heat.

The next step was to identify the average number of heating degree days for a particular state. To do this calculation, DeManche relied on the U.S. military weather installations.[17]

DeManche then calculated the average annual heat load, which is measured in millions of BTU's. An established formula was used to convert heating degree days into average annual heat load. The Defendant did not challenge these calculations.

The next step was to identify the average electric price. The main source of DeManche's information was the October 1998 issue of Energy User News. This publication reprinted prices from March 1998.

In the next step DeManche identified the average natural gas price for each state. The source of information again was the October 1998 Energy User News.[18]

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[17] In cross-examination, the Defendant pointed out that DeManche used a straight line average. DeManche did not weigh the data to reflect that New York City, where more HUD-eligible properties are located, has a lower average degree day total than Utica. The Defendant suggested that a weighted average would be a more accurate measure.

In redirect, DeManche established that the Defendant's point was academic. DeManche recalculated the number of average degree days using only the number of degree days for the largest metropolitan area. This approach was actually more conservative than the weighted average approach proposed by the Defendant. The change in average degree days did not affect DeManche's analysis.

[18] On cross-examination, the Defendant suggested that DeManche may have skewed the data by relying on the October, rather than the August, publication. On redirect, DeManche showed that the October data for electricity was the same as, or more conservative than, the August data in nearly half the states. For the natural gas price, the October data was the same as, or more conservative than, the August data in approximately three-quarters of the states.

When DeManche used an average of the October and August data, the change in data had no effect on DeManche's analysis.

The final and most important step in DeManche's analysis was calculating the payback period. The payback formula is a complicated, but well-established, formula. Simple payback is the length of time it takes for an energy-conservation improvement to pay for itself. Simple payback equals the cost of the improvement divided by the yearly savings.

A critical component of the formula for simple payback is the cost of conversion. DeManche used $3,500 as the basic cost for converting an apartment unit from electric heat to gas heat, a figure that is conservative. The AHELP Procedures Manual states that the range of cost for an electric-to-gas conversion is $2,500 to $3,500. This number was based on industry cost data published by the R.S. Means Company. It specifically includes the cost of a performance bond that an ESCO was required to provide.

Based on the $3500 figure, DeManche calculated the payback period. DeManche believed that when a state had a conversion payback of 5.9 years or less, all properties in that state would be energy viable. By analyzing properties on a state-wide level, DeManche's method of including or excluding all properties has the potential to be both over-inclusive and under-inclusive. Any property within a state with an average payback of less than 5.9 years was assumed to be energy viable, although an analysis of a particular property could show that that one property was not actually energy viable. Likewise, DeManche also assumed that all properties in a state with an average payback period of greater than 5.9 years would not be energy viable. However, individual properties in states with a payback period greater than 5.9 years could be energy viable if properties were analyzed individually. Despite this limitation, DeManche's method is sound and reasonably accurate because most properties in a given state share the characteristics of other properties in that same state.

The next step was to identify the number of units in a particular state that are energy viable. The source of this data was the information from Recapitalization Advisors, which was discussed in the preceding section of the opinion.

For the final step, DeManche attempted to identify the percentage of properties that were heated with electric heat. This step is obviously important because only those properties heated with electric heat would benefit from an electric-to-gas conversion. DeManche proposed using 44.5 percent.

The Court finds that this figure substantially overestimates the percentage of HUD properties that could benefit from a conversion from electric heat to gas heat. DeManche relied on a 1995 study by the Department of Energy. PX 17. This study states that in multifamily properties with five or more units that are rented, 44.5 percent are heated with electricity.

This same study, however, breaks down the 44.5 percent into different components. Of all multifamily properties with five or more units that are rented, 15.3 percent have built-in electric units, 19.7 percent have a central warm-air furnace, 7.7 percent have a heat pump and 1.8 percent have some other source of electrical heat. The most important category is built-in electric units. The undisputed evidence is that most of the HUD-assisted properties were built under cost constraints. Electric baseboard heating, which is resistance heating similar to the mechanism in a toaster, is the cheapest form of heating to install. Thus, electric baseboard heating is prevalent in HUD-supported housing.

The other types of electrical heating systems are not as feasible for an electric-to-gas conversion. For example, it would not be practicable to convert any system using ducted heat if that system also had air conditioning because the cooled air also moved through the ducts. Accordingly, the Plaintiff's number of 44.5 percent is not accurate. The more accurate base number is 15.3 percent, which is the percentage of properties with more than 5 rented units that have built-in electric units.

Although 15.3 percent is a better baseline than 44.5 percent, 15.3 percent understates the number of HUD-assisted properties with electric resistance heating. The Department of Energy study, the source for this information, examines all multifamily properties with five or more rental units. Because not all of these properties were built with the same cost restraint, it is fair to assume that the HUD properties have a greater percentage of electric resistance heating. For example, Bickford from Insignia stated that electric resistance heating systems were common. Tr. 1684. Furthermore, because many of the older HUD-assisted properties do not have air conditioning, these properties are unlikely to have a ducted system.

The Court finds that 35 percent is a reasonably accurate number. During the time for performance under AHELP, Recapitalization Advisors estimated that between 32 and 35 percent of the AHELP-eligible properties have electric heat. *See* DX 62. The Court finds this opinion especially persuasive because (a) it is a number between 15 and 44 percent and (b) it is a number formed during the course of performance and is untainted by the influence of litigation.

Accordingly, the first method used by the Plaintiff to calculate the percentage of energy-viable properties, the DeManche method, needs a revision. The number of properties with electric heat must be reduced. When this modification is made, about 16 percent of the Field Notice properties were energy viable.

2. Second Method

The second method used by the Plaintiff to calculate the percentage of energy-viable properties was done by David Smith and is called the heat approach. This method is similar to the method undertaken by DeManche, except that Smith includes conversions from not just electric but also oil and older inefficient gas to newer gas furnaces. This approach repeats the same mistaken assumption that approximately 44 percent of the HUD-assisted properties have electric resistance heating. When Smith's approach is corrected using the Court's figure of 35 percent, the number of energy-viable properties decreases. The new number is 121,212 energy-viable properties. This figure is approximately 15 percent of the total number of Field Notice properties.

3. Third Method

The third approach taken by the Plaintiff is an alterative approach proposed by David Smith, which the parties call the "consumption" approach. Under the consumption approach, Recapitalization Advisors analyzed the utility consumption per apartment. The theory is that the more money an apartment spends on electricity, the more likely the apartment is to benefit from energy-efficiency measures.

The Court finds the consumption approach is generally accurate. The Court, however, finds that Smith overestimated the percentage of energy-viable apartments that have utility bills of less than $1,250 per year. Apartments that spend little on utilities are unlikely to have enough savings from energy-efficiency measures to meet AHELP's required debt ratio. Accordingly, the Court has revised Smith's figures.

Under the revised figures, the number of energy-viable apartments in the consumption approach is 128,910. This figure is approximately 16 percent of the total number of eligible Field Notice properties.

4. Summary on Energy Viability

After revising the three different approaches to energy viability, the numbers are generally consistent, ranging from 15 to 16 percent. Accordingly, the Court finds that 16 percent of the properties that are eligible for the AHELP Program are also viable from a technological and energy-efficiency perspective.

E. Step 3: Willingness to Participate

Step 3 attempts to estimate the number of eligible and energy viable properties that would participate in the AHELP Program. Participation depends upon the consent of two different groups: the owners and the first mortgagees. The consent of first mortgagees is necessary before the property owners further encumber the property with the AHELP loan.

1. Owner Interest

To gauge owner interest, the Plaintiff relied on Recapitalization Advisors, its consultant on the AHELP Agreement. As has been noted, Recapitalization Advisors has extensive knowledge about the properties within the HUD-assisted portfolio. Recapitalization Advisors estimated that 34 percent of the owners would not be willing to participate.

The Defendant's expert, David Hisey, also used this factor in his analysis. The Court finds that eliminating 34 percent of the properties for owners unwilling to participate is a reasonable estimate.

Persuasive testimony from owners confirmed Smith's opinion that owners would be interested in AHELP loans. The two largest owner / managers of properties in this portfolio were Insignia and National Housing Partners (NHP). The Plaintiff called Michael Bickford, a former vice-president of Insignia, and Eleanor Zappone, a former asset manager for NHP, to testify at trial. The Defendant called one representative, Robert Sampson, Jr., from an owner at trial. Sampson's testimony suggested that owner interest was ambivalent. Sampson's own company submitted properties to Energy Capital for evaluation. Tr. 3169, 3610. Thus, on balance, Sampson's testimony helps the Plaintiff.

Bickford explained that Insignia was very attracted to the AHELP Program. Insignia went so far as to ask David Smith to reserve $55 million of the $200 million for Insignia properties. According to Bickford, Insignia believed that AHELP would be so successful that the $200 million would be consumed completely.

Insignia expected that the AHELP Program would serve its need for energy improvements. Insignia was spending an increasing proportion of its money on energy costs. Yet, because of the HUD regulations, only a handful (less than 5 percent) of HUD-assisted properties in Insignia's portfolio received any energy-efficiency improvements. Insignia was concerned that operating expenses could expand beyond its control.

By providing a means to finance energy-efficiency improvements, AHELP promised a wonderful opportunity to Insignia. Insignia was aware of some of the potential risks to participating in the program such as the lack of guaranteed energy savings, the need to obtain first mortgagee consent, and the interest rate in repaying the AHELP loans. Tr. 1718-20. Even with these factors, Insignia was strongly interested in the AHELP Program. In regard to the interest rate, Bickford testified that Insignia was not very sensitive to the interest rate because AHELP was "the only game in town." Insignia's desire to participate is displayed by its submission of approximately 43 PEC's before the AHELP Program was terminated.

NHP, according to Zappone, was also very interested in the AHELP Program. Investigating whether every property in NHP's portfolio would benefit from an AHELP loan was the goal of Zappone, who eventually was appointed to lead NHP work with the AHELP program.

Zappone's testimony showed that NHP shared the same assessment of AHELP with Insignia. Like Insignia, NHP worried that energy consumption was draining more cash flow. But NHP had not been able to solve this problem. Because large scale energy improvements were too expensive to pay for with routine operating expenses, less than 10 percent of NHP properties had undergone improvements to improve their energy efficiency.

Again, like Insignia, NHP remained very attracted to the AHELP Program, despite NHP's awareness of the potentially adverse consequences of accepting an AHELP loan. Zappone specifically testified about the application fees, the lack of guaranteed savings, the requirement of first mortgagee consent and the interest rate. None of these caused enough concern to make NHP question its commitment to the program.[19] Tr. 2164-2168.

Together Bickford and Zappone show that owners were attracted to the AHELP program. Owners were willing to accept the proposed interest rate and to incur the obligations associated with a second loan on their properties because AHELP offered an opportunity to restrain energy consumption. The willingness of owners is especially important because owners would risk their *entire* investment in the property.

2. Other Disqualification

After assessing ownership interest, Energy Capital continues its assessment of the participation rate by identifying a second group, which it calls "other disqualification." This category itself comprises two subgroups. The first is a general group, which the Court calls Energy Capital evaluation, accounts for Energy Capital's discretion to reject applicants. The second is the issue of first mortgagee consent.

a. Energy Capital Evaluation

In analyzing the AHELP applications, Energy Capital intended to assess the creditworthiness of the applicant and property. That is, even if a property were willing to participate in the AHELP Program, Energy Capital retained discretion to reject the property. David Smith eliminated 11 percent of the potentially eligible properties under the Field Notice group because of problems with either the property or the owner, or both the property and owner. The Court accepts this figure as reasonably accurate.

b. First Mortgagee Consent

First mortgagee consent is problematic, first, because, in general, a second loan *could* increase the chance of default on the first loan, and second, because, as previously noted, under the cross default provision, the owner's default on the AHELP loan would put the mortage into default as well, depriving the first mortgagee of its anticipated cash flow during the term of the mortgage, although in the case of HUD assisted housing, the FHA would pay virtually all of the remaining principal of the first mortgage.

[19] NHP, however, experienced one problem in applying for AHELP loans. Zappone struggled with another employee over who would lead the program. This administrative in-fighting delayed the submission of PEC's. The delay, however, was caused by reasons unrelated to the attractiveness or worthiness of the AHELP Program.

There are two distinct groups of first mortgagees: Fannie Mae and "others." Fannie Mae holds approximately 40 percent of the first mortgages on the Field Notice properties. Other entities own the remaining percentage.[20]

(1) Fannie Mae

The first issue is whether Fannie Mae, as first mortgagee, would consent to an AHELP loan. Both the Plaintiff's expert, David Smith, and the Defendant's expert, David Hisey, assume that Fannie Mae would consent to an AHELP loan. Although its expert treated Fannie Mae's consent the same as the Plaintiff's expert, the Defendant contests whether the Plaintiff has proven that Fannie Mae would consent to having loans placed on properties where it held the first mortgage. The resolution of this factual dispute is made considerably more difficult because neither the Plaintiff nor the Defendant called a witness from Fannie Mae.

The most probative evidence before the Court on Fannie Mae's consent is the term sheet between Energy Capital and Fannie Mae. Fannie Mae promised to fund up to $200 million of loans and also to purchase the same loans back from Energy Capital. The Plaintiff argues that the Court should infer that Fannie Mae would be willing to consent because Fannie Mae has risked its own money in support of the program.

The Defendant, in contrast, argues that Fannie Mae's consent as a first mortgagee has not been established. It argues that an inference is not warranted because Fannie Mae could have been willing to lend money and to purchase loans only for those properties where it was not the first mortgagee.

The Court resolves this factual dispute in favor of the Plaintiff and finds that Fannie Mae would have consented to loans being placed on properties where it was the first mortgagee. Because increasing energy efficiency is consistent with Fannie Mae's goals, it is reasonable to conclude that it would tolerate some risks to its capital.

Significantly, Fannie Mae agreed to finance the AHELP Program and to purchase AHELP loans despite some risks. The term sheet between Energy Capital and Fannie Mae alerts Fannie Mae that the AHELP loan would have a priority over the FHA-insured mortgage after the assignment (and payoff) of that mortgage.[21] PX 4. Fannie Mae,

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[20] The number of different entities that own the first mortgage was not provided. Testimony showed that the mortgagees usually delegate the servicing of the mortgage to "mortgage service companies." There are about 10 mortgage service companies that dominate the industry.

The interest of mortgage service companies and first mortgagees align perfectly. Accordingly, the Court will use "first mortgagees" generically to refer to not only first mortgagees but also to mortgage service companies.

[21] Energy Capital's agreement with Fannie Mae required that the AHELP loan contain the springing subordinated lien provision and the cross-default provision.

therefore, was well-aware that its interest, as a first mortgagee, could be jeopardized by consenting to an AHELP loan. Nevertheless, Fannie Mae agreed to participate in the program. These facts support a finding that Fannie Mae would have consented.

Accordingly, the Court finds that Fannie Mae would have consented to second mortgages (to secure the AHELP loan) being placed on properties where it holds the first mortgage. Fannie Mae would have consented whenever Energy Capital wanted to originate the loans because Energy Capital was committed to underwriting loans at the standard approved by Fannie Mae. Thus, Fannie Mae's consent was for 100 percent of loans where it was the first mortgagee, which is 40 percent of the properties.

(2) Other First Mortgagees

Whether first mortgagees would consent to AHELP loans being placed on their properties is even more problematic than Fannie Mae, since there is less direct evidence for other first mortgagees than for Fannie Mae. Again, the issue is complicated because neither party presented testimony from a first mortgagee. Instead, the parties presented facts that would be incentives or disincentives for first mortgagees to consent. Smith and Hisey, the two experts on this topic, also presented their opinions. Smith believed that 90 percent of all first mortgagees (including Fannie Mae) would consent. This means that slightly more than 83 percent of the non-Fannie Mae first mortgagees would consent. For the Defendant, Hisey believes that zero percent of first mortgagees would consent.

First mortgagees make money by having their loans repaid with interest. A default[22] for any first mortgagee causes the first mortgagee to lose the interest income it would earn for several years into the future. Although HUD, acting through the FHA Fund, insures almost the entire loan, upon default the FHA Fund pays only the principal.[23]

The parties agree that first mortgagees want to avoid default. The question, however, is whether an AHELP loan increases or decreases the chance of default.

Although in general a second loan would increase the chance of default, the Plaintiff argues that an AHELP loan increases the financial stability of the property. The AHELP loan is designed so that the energy savings will cover 110 percent of the debt service of the loan. The extra 10 percent is improved cash flow that could be used to pay other expenses of the property. Energy Capital contends that the potential savings, beyond

[22] More precisely, the first mortgagee is paid off (and loses its payment stream) after the assignment of the mortgage to HUD, which is after the default. Tr. 2642.

[23] Hindsight shows that during the time AHELP loans would have been originated, interest rates declined. This decline in interest rates meant that first mortgagees would be especially wary of defaults. Although after a default, the first mortgagee has additional capital to make a new loan, this replacement loan would be at a lower interest rate.

what is required to repay the AHELP loan, would convince first mortgagees to consent to an AHELP loan.

Furthermore, Energy Capital was willing to pay first mortgagees a fee equaling 10 basis points to consent to a loan.[24] Robert Brozey from Energy Capital testified that it was standard practice to purchase the consent of first mortgagees. Brozey deposition, which was submitted into evidence, page 81; *see also* Tr. 1032 (Cohen testimony). Zappone from NHP confirmed that her company, which frequently negotiated with first mortgagees, usually could obtain the consent of first mortgagees if the first mortgagees were paid. Tr. 2171.

The Defendant emphasizes that the energy savings are speculative and not guaranteed. Although Energy Capital may try to structure the AHELP loan to have debt service coverage of 110 percent, the savings depends on utility rates. Because utility rates in the future are not known, the savings are unpredictable. Furthermore, Energy Capital in the AHELP Agreement does not guarantee a particular energy savings. The speculative savings must be compared to the absolute obligation to repay the AHELP loan. With or without any energy savings, the property owner must repay the AHELP loan. The government reasons that because repaying the AHELP loan takes away money that would otherwise be available for repaying the primary loan, first mortgagees would be unwilling to risk a default and therefore refuse to consent to an AHELP loan.

Historically, the rate of default for these properties is extremely low. Tr. 2643. Both the Plaintiff and the Defendant use this fact to support its position. The Plaintiff argues that the historically low default rate means that first mortgagees should have less fear about a default. The Defendant argues that the historically low default rate means that first mortgagees have less reason to take steps necessary to improve the cash flow of the secured property because the property is already succeeding.

As mentioned previously, neither party called a witness from any first mortgagee. Both the Plaintiff and the Defendant listed David Carey and Thomas White from Fannie Mae on their lists of proposed witnesses submitted before trial. The Defendant also listed Robert Gould, whom the Defendant identified as being employed by a company that held the first mortgage on a significant percentage of properties eligible for AHELP. (The Plaintiff did not list any first mortgagees, other than representatives from Fannie Mae.)

Although there is authority to the effect that an adverse inference may be drawn against a party that knows about a witness with information on a material issue and fails to call that witness, here, the Court declines to use the adverse inference against either party, because "[a]n unfavorable inference may not be drawn from the lack of testimony by one who is equally available to be called by either party." *A.B. Dick Co. v. Burroughs*, 798 F.2d 1392, 1400 n.9 (Fed. Cir. 1986) (citing *Johnson v. Richardson*, 701 F.2d 753, 757

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[24] *See* Tr. 607 (Siegel testimony).

(8th Cir. 1983).[25] Both parties listed representatives of first mortgagees. Therefore, the Court concludes that these potential witnesses were equally available to the Plaintiff and to the Defendant.[26]

From the arguments and evidence (or lack thereof) presented by the parties, the Court initially finds that it is as likely that first mortgagees would consent as not. Expressing this mathematically as a 50 percent consent rate, the court adds a percentage to account for incentives to consent. These include: (a) first mortgagees are likely to follow the example of Fannie Mae, the largest holder of first mortgages, (b) first mortgagees are likely to be influenced by HUD, the insurer of its mortgages, and (c) a payment to first mortgagees would increase the likelihood of obtaining their consent.[27] As a result, the Court finds that two-thirds of the non-Fannie Mae first mortgagees would consent to an AHELP loan.

Although this figure has the attraction of being between the Defendant's estimate of zero and the Plaintiff's estimate of 83 percent, it is more compelling when it is viewed as the average number (66 percent) between two "reasonable" estimates, which are 50 percent and 83 percent.

The Defendant did not offer a reasonably low estimate. The number used by the Defendant, zero percent, is far too low.[28] That number ignores that the AHELP Program

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[25] *See also Day and Zimmerman v. United States*, 38 Fed. Cl. 591, 602 (1997). As the fact finder, this Court has discretion about whether an adverse inference is appropriate. *A.B. Dick Co. v. Burroughs*, 798 F.2d 1392, 1400 (Fed. Cir. 1986).

[26] The Court notes that no one has argued that these people were somehow "unavailable."

[27] Energy Capital's cash flow model does not account for these payments.

[28] The Defendant explains that Hisey was not opining on the number of first mortgagees that would consent. Instead, Hisey was conducting a "sensitivity analysis." According to the Defendant, the purpose of the sensitivity analysis was to show that if one variable changed, then the final result would change. Tr. 3484-91, 4424 (closing)

The import of the sensitivity analysis is not clear. It is axiomatic that changing one variable in an equation will change the result of the equation. An expert is not required to testify to such a common sense proposition.

To have any validity, sensitivity analysis must make "reasonable" substitutions. For the issue of whether non-Fannie Mae first mortgagees would consent, Hisey used "zero," a figure that is not justified. Using numbers that lack any rational basis will change the result dramatically. But a significant change in result is unwarranted when the factors used to reach the result are arbitrarily selected. Thus, this Court does not credit Hisey's estimate. *See Burns v. Secretary DHHS*, 3 F.3d 415, 417 (Fed. Cir. 1993) (affirming fact finder's rejection of expert's opinion where the underlying facts were not substantiated by the record); *Loesch v. United States*, 645 F.2d 905, 915, 227 Ct. Cl. 34, 46 (Ct. Cl. 1981) (stating "opinion evidence is only as offers some benefits to first mortgagees. While the Court expects that the experts will differ in their opinions, the Court expects that both opinions should be reasonable.

The Court is also skeptical about the number used by the Plaintiff, 83 percent. This number is slightly too high because the Plaintiff's estimate fails to consider that the risk of default even without an AHELP loan is relatively minimal. Although the number is too high for the Court to accept as a "fact," the estimate is within the reasonable range.

Thus, the average number between the "reasonable" estimates of 50 percent and 83 percent is accurate. The Court finds that 66 percent of non-Fannie Mae first mortgagees would consent.

(3) Summary of First Mortgagee Consent

The Court finds that Fannie Mae would consent to AHELP loans being placed on properties where it was the first mortgagee. The Court additionally finds that Fannie Mae holds the first mortgages on 40 percent of the Field Notice properties.

Additionally, the Court finds that 66 percent of non-Fannie Mae first mortgagees would consent. These non-Fannie Mae first mortgagees collectively hold 60 percent of the first mortgages.

Consequently, the Court finds that overall approximately 80 percent of first mortgagees would consent. This figure is lower than the number proposed by the Plaintiff's expert, which was 90 percent.

3. Summary of Willingness to Participate

For Field Notice properties, the consent of first mortgagees is one of three mutually exclusive factors that comprise the category "willingness to participate." Owner interest, which is discussed in Section a, above, eliminates 34 percent of the properties. A decision by Energy Capital to reject the properties excludes an additional 11 percent.

When these three factors are considered jointly, the total exclusion is 53 percent. The participation rate is 47 percent for Field Notice properties.

The analysis for Section 202 properties is slightly different because Section 202 properties do not have the issue of first mortgagee consent. (Or, viewed differently, because HUD was the first mortgagee for Section 202 properties and HUD endorsed the AHELP Program, 100 percent of first mortgagees would consent.) When only "owner interest" and "Energy Capital's disqualification" are considered, the result is 59 percent.

Accordingly, the participation rate for Section 202 properties is 59 percent.

F. Analysis of Quantity of Loans Originated

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good as the facts upon which it is based.")

Having evaluated the number of eligible properties, the percentage of properties that are energy viable, and the percentage of properties that would participate in the Program, the Court can find the number of loans that would be originated, as indicated on the table below.

Number of Loans Originated				
Type of Property	Number of Properties	Energy Viability (%)	Participation Rate (%)	Subtotal
Field Notice	7,782	16	47	585
Section 202	2,955	16	59	279
Total				864

But this number does not reflect a dollar amount. Although it is theoretically possible for Energy Capital to make 864 loans, the dollar amount per loan is important because the AHELP Agreement was limited to $200 million. Therefore, the Court turns now to the question of the average loan size.

G. Step 4: Average Loan Size

The parties approach the issue of average loan size dramatically differently. Both approaches are flawed. After compensating for the errors, the Court finds that the average loan size is $2,800.

The Plaintiff's expert, David Smith, focused on the average cost of the core improvements. The AHELP Agreement approves five energy-efficiency measures, which the parties call the "core improvements." The Procedures Manual sets out a price range for each of the five. The most expensive improvement was a conversion from electric to gas heat. The price range for this improvement was $2,500 to $3,500 per apartment unit. Each of the other four improvements cost less than $1,000.

Smith assumed that a property would want to install all five core measures. Smith added the average price for each core improvement. This sum is $3,900. Smith then added an extra 15 percent for "soft costs."[29] Smith also reduced the figure by about 11 percent to present a more conservative, and therefore more reliable, figure. Smith's final number was $4,000.

The Court finds an error in Smith's analysis. Smith assumed that all properties would have an electric-to-gas improvement. This assumption cannot be sustained because

[29] "Soft costs" are the amount of money that it costs to get the loan. The parties do not dispute the estimate of 15 percent for soft costs.

the Court has found that only 35 percent of the eligible housing had electric resistance heating. *See* Section VII.D., above.

The Defendant's expert, David Hisey, focused on those improvements that property owners had requested in their PECs. Hisey specifically limited his search to PECs from properties in cold weather climates because Energy Capital was focusing on cold weather states. One hundred PECs came from cold weather states. For whatever improvement was requested on these 100 PECs, Hisey used the average cost of that improvement (which was the same average cost used by Smith). Hisey looked at what owners were requesting; he did not assume that property owners would want all improvements. Hisey also added 15 percent for soft costs. Hisey's evaluation concludes that the average loan size was $2,000.

Hisey's method is seriously flawed by including loans for zero dollars. When a property owner requested an improvement other than a core improvement, Hisey said that the loan was for zero because Energy Capital could not make loans for non-core improvements without additional authorization for HUD. Seventeen of the 100 PECs requested non-core improvements. But instead of removing these properties from the pool of properties used to calculate average loan size, Hisey added them in as loans for zero dollars. By doing so, Hisey has unfairly skewed the average loan size in an unreasonable and unwarranted way. Simple business sense indicates that Energy Capital would not make a loan for zero dollars.

Hisey's explanation for his approach lacks justification. Hisey contended that he could have either (a) entered a zero amount for the loan or (b) deleted this property from the eligible properties in some other category. Quite clearly, entering a zero amount for loans overemphasizes the significance of these properties. When seventeen properties are considered in a set of 100 properties, those seventeen properties are seventeen percent. If these same 17 properties were considered in a set of all eligible Field Notice properties, which is 7,782 properties, those 17 properties are only two tenths of one percent. It is simply unfair and unreasonable to consider properties that were ineligible for the AHELP Program in the category for average loan size.[30]

The Court has corrected Hisey's errors. After recalculating the average loan size and including soft costs for 15 percent, the average loan size is $2,585.

This figure is a valid baseline. The Court increases it by about 10 percent, because Hisey's methodology fails to consider that Energy Capital would try to make loans for the

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[30] On cross-examination, the Plaintiff pointed out other errors in Hisey's analysis. These mistakes affect the average loan size in small amounts:

Hisey mischaracterized two properties (Centreville Commons and Woodside Village.)

Hisey also included Energy Capital as making loans for less than $100 per apartment. For the reasons explained above, Energy Capital would not make loans for such a small amount. Accordingly, these properties should not be factored into the average loan size.

largest amount possible. The most lucrative loans are those loans that include an electric to gas conversion. Although Smith's analysis overstates the number of properties that would benefit from an electric to gas conversion, it would be equally unwarranted to ignore Energy Capital's sensible strategy of focusing on these properties. If a large proportion of loans included electric to gas conversions, then the average loan size would increase. A proper calculation of average loan size should recognize this fact.

Accordingly, the Court finds that the average loan size is slightly greater than the baseline figure established by Hisey's analysis. The average loan size is $2,800 per unit.

H. Total Revenue Generated

After establishing the number of properties eligible for AHELP and the average loan size per unit, the final step is to determine the total amount of loans that Energy Capital could have made.

Preliminarily, the Court needs to establish the average number of units per property. Using information from Smith, the average number of units for the "Field Notice" properties is about 102.[31] The parties agree that the average number of units for Section 202 properties is 73.

Total Loan Dollars Originated				
Type of Property	Number of Eligible Properties	Average Units per Property	Loan Average per Unit	Subtotal
Field Notice	585	102	2,800	167,076,000
Section 202	279	73	2,800	57,027,600
Total	864			224,103,600

[31] Smith assumed that the average number of units per property is 130. Although Smith was cognizant that a strict mathematical averaging of the "field notice" properties yields the number 101.8, Smith stated that he was attempting to calculate the average number of units per property *where Energy Capital would close a loan*. The Court understands that trying to close a loan on a property with a greater number of units makes sense from a business perspective. The Court, however, was given no factual foundation to justify an increase from 101.8 to 130. Thus, the Court will use 102 units per property.

This decrease has a significant effect on the total size of a loan per property. While Smith calculated the average loan size per property as $520,000 ($4,000 per unit multiplied by 130 units per property), the Court calculates the average loan size per property as $285,600 ($2,800 per unit multiplied by 102 units per property).

As indicated in the table above, the potential total loan revenue generated is $224,103,600, which is about 12 percent more than the $200,000,000 maximum amount allowed under AHELP. Consequently, the Court finds that Energy Capital would have originated the full amount.

The Court finds that this estimate is reasonable because each of the component steps is reasonable. The Court has reached this number after modifying the numbers proposed by each party. In doing so, the Court has *not* given any credit to the Plaintiff for the discrepancy in the number of Field Notice properties and Section 202 properties. *See* footnote 11 and 14, above. Because the Defendant actually proposed numbers that were higher than the Plaintiff's numbers, the Court's conclusion, which is based on the Plaintiff's number of properties, is partial to the Defendant.

Accordingly, the next step is to analyze the cash flow models. These models place the income stream to be derived from the loans into the context of an ongoing business that also incurs expenses.

VIII. Reasonable Certainty: Part 2 - Profitability

A. Cash Flow Models

The Plaintiff retained Jerry Arcy, an accountant from PriceWaterhouseCoopers, to testify about the cash flow Energy Capital would have had if it had originated $200 million in loans. Arcy used a set of assumptions in calculating the income and expenses of Energy Capital's AHELP line of business. The Defendant did not retain a separate expert for this part; David Hisey also testified about the cash flow.

Arcy and Hisey approached the cash flow with the same model. Each started with a particular loan volume, deducted the estimated expenses, and determined the profit. This process produced an amount of lost profits to which Energy Capital was entitled.[32] These approaches are set out in the following chart:

Summary of Parties' Positions on Cash Flows		
	Plaintiff - Arcy	Defendant - Hisey[33]
Loan Volume (dollars)	200,000,000	55,500,000
Total Cash Inflow (dollars)	342,261,000	100,542,616

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[32] Of course, the Defendant, through Hisey, does not concede that Energy Capital is entitled to lost profits. Instead, the Defendant contests the award of lost profits and proposes Hisey's figure only as an alternative.

[33] The Court reproduces Hisey's analysis for the Field Notice properties and Section 202. Hisey also examined the Field Notice properties without including the Section 202 properties.

Summary of Parties' Positions on Cash Flows		
Total Cash Outflow (dollars)	317,633,000	96,777,593
Net Cash Flow (dollars)	24,628,000	3,765,023

This chart summarizes a considerable amount of information and many details are eliminated. The following sections bring out these details.

B. Net Cash Flow

Simply put, the "Net Cash Flow" is the "Total Cash Inflow" minus the "Total Cash Outflow." The most important variable in calculating the net cash flow is the total loan volume. The total loan volume determines how much income is received and also affects how much money is expended.

1. Total Loan Volume and Number of Loans

For total loan volume, Arcy and Hisey differ by almost a factor of five. In the preceding section, the Court found that Energy Capital will originate $200 million in loans. Thus, Arcy's model starts at the same place the Court does: $200 million in total loan volume.

In addition to total loan volume, another important variable is the number of loans needed to reach that volume. Although Arcy correctly assumes that Energy Capital would make $200 million in loans, Arcy wrongly figures that Energy Capital could reach this ceiling with only 385 loans.

Arcy relied on the work of Recapitalization Advisors, a consultant to Energy Capital on the AHELP Program, for the average loan size. The preceding sections of this opinion extensively discuss the accuracies and inaccuracies in the Recapitalization Advisors report. The most critical error in this report is that it overestimates the average loan per unit and overestimates the average number of units per properties. Thus, the average loan size is wrong. *See* footnote 31, above.

The Court has determined that Energy Capital could make loans to 864 properties. These loans would generate a total of $224,103,600. Because this figure is above the maximum amount, Energy Capital would not actually make loans to 864 properties. Instead, Energy Capital would make loans to 771 properties, which, coincidentally, is almost exactly double 385.[34]

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[34] The Court did not choose to nearly double 385 to arrive at 771. It arrived at the figure of 771 by calculating the weighted average total loan and then dividing that number into $200

2. Total Revenue

Total revenue to Energy Capital remains almost the same, although the number of loans doubles. This constancy is because Energy Capital's primary source of income is the repayment of the AHELP loans with interest and these proceeds are independent of the number of loans. In other words, if $200 million is loaned, the total revenue will be $200 million plus interest, regardless of the number of loans.[35] Therefore, Arcy's model for revenue is reasonably correct, because Arcy's model starts with the correct total amount of loans: $200 million.

Both Arcy and Hisey agree that the repayment of the AHELP loan with interest is the main source of income. In both models, the proceeds from borrowers is nearly 97 percent of the total income for Energy Capital.

The remaining 3 percent of Energy Capital's income has two different components. One component is certain fees associated with the loan applications. Because there is a fee for each loan, the amount of fees increases as the number of loans also increases. The increase in fee revenue offsets, somewhat, the increased expenses, described in the following section. The other component of the remaining three percent is the recovery of money from certain funds that Energy Capital was required to set up as security. The increase in the number of loans does not affect the recovery from these funds.

Thus, although the Court has found that Energy Capital would need to generate nearly double the number of loans to reach $200 million, the Court also finds that the total inflow to Energy Capital is almost exactly the same as proposed by Arcy. Arcy's model remains predominantly accurate.

A problem, however, with Arcy's model concerns the pace of loan origination. Arcy assumed that the first loan would close in April 1997 and the last loan would close in October 1998. During these 19 months, there was a gradual increase in the number of loans closed per month.

The Court finds that the first loan would not close in April 1997. No property was close enough at the time of termination to close so soon. By the middle of February 1997, Pine Estates II (the prototype property) had progressed, with some difficulties, to the stage of having an energy audit conducted. The energy audits that had been done were not acceptable. Even after the energy audit was approved, there were several remaining steps. Energy Capital's own documents predict that 7 weeks would pass from the completion of the energy audit to the loan closing. *See* DX 255/2; *see also* PX 75 (estimating on February 14, 1997 that the first loan would not close for 45 days). Further, although

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million. The result is 771.

[35] It is mathematically true that, all other factors remaining constant, ten loans of $10 will earn as much interest as one loan of $100. Assuming a loan volume of $200 million, the number of loans does not affect the total proceeds from borrowers. Tr. 2234, 2288.

Energy Capital's estimate of 7 weeks may be a reasonable estimate for the average property, it is likely that the first property would take approximately twice as much time as Energy Capital estimated.[36] Thus, the Court finds that the first loan would close July 1, 1997.

Energy Capital's receipt of any loan proceeds would be delayed by about three months. This shift would affect, in a very small way, Arcy's cash in-flow model. The effect is minimized because Arcy assumed that the borrowers would pay equal amounts of principal and interest each month, that is, Arcy "straightlined" the profits. In doing so, Arcy's model is conservative because the receipt of interest is somewhat delayed. If the AHELP Program had actually proceeded, the borrowers would have repaid a greater amount of interest in the beginning of the loan and less interest at the end of the loan. (This repayment structure is like a typical repayment on a home mortgage.) Since Arcy already delayed the receipt of interest throughout the course of a 12-year loan, a further 3- month delay in the commencement of the interest payments will not change the cash flow significantly.

In summary, for the revenue side of the ledger, Arcy's model is reasonably accurate. The two corrections (number of loans and origination date of the first loan) would have minimal effect. The Court will use $342,261,000 as the total revenue.

3. Total Expenses

According to Arcy's model, total expense has the following components: (1) repayment of money to Fannie Mae, (2) payments to different escrow funds, (3) payments for salaries and employee benefits, (4) miscellaneous fees, and (5) payments to first mortgagees. The parties do not dispute that these are the components of outflow, but their figures are different

The Court finds that Arcy's total expense model is reasonably accurate. This is true even when the necessary adjustments are made to account for the inaccuracies in the number of loans and payments to first mortgagees that the Court found. Arcy's model remains reasonably accurate even after these corrections, because the main outflow, repayment to Fannie Mae, is not affected.

Energy Capital's source of funding was Fannie Mae. Fannie Mae loaned capital to Energy Capital and Energy Capital, in turn, loaned money to property owners. When the loan is repaid, the flow of capital reverses. Property owners repay Energy Capital. While keeping some profit for itself, Energy Capital repays Fannie Mae.

Thus, the main expense in the AHELP Program was repaying Fannie Mae. Arcy estimated that this expense was 94 percent of total expenses. For Field Notice properties, Hisey estimated this expense as nearly 90 percent and for Field Notice and Section 202

[36] For example, Pine Estates II stayed in the energy audit stage longer than expected because Energy Capital was establishing procedures to be used for other properties.

properties as 91 percent. (Hisey prepared different cash flow models for just the Field Notice properties and the Field Notice properties with the Section 202 properties.)

For the reasons explained in the section on total inflow, above, the number of loans does not affect the repayment. Regardless of whether Energy Capital makes 385 loans or 771 loans, Energy Capital will need to repay Fannie Mae $200 million (plus some interest). Accordingly, it is very important to understand that at least 90 percent of Fannie Mae's expenses are constant. Only within the remaining 10 percent is there room for any change.

Another expense that does not depend on the number of loans is payments to different escrow funds. Energy Capital is required to set aside money for certain potential misfortunes such as an equipment failure or a default, but since Energy Capital sets aside a percentage for each loan, the number of loans does not affect this fund. In other words, as long as Energy Capital generates $200 million in loans, it must fund these other accounts with the same amount of money. Payments to these various accounts are 1.9 percent for Arcy and 1.7 (Field Notice) and 1.4 percent (Field Notice and Section 202) for Hisey. The fact that these expenses remain constant further shrinks the proportion of expenses that are variable to about 8 percent.

While repayment of Fannie Mae and payments to different funds, which account for 92 percent of total outflow, do not depend on the number of loans, the largest expense of the remaining 8 percent of total outflow — paying salaries and benefits for Energy Capital employees — is affected. Arcy has this category as 1.8 percent of all expenses. Hisey has salaries and benefits as 3 percent (Field Notice) and 3.6 percent (Field Notice and Section 202). The smaller percentage for Arcy can be attributed to a certain economy of scale. The important point is not the exact percentage, but rather the relatively insignificant size.

Under the Court's findings, Energy Capital would have to originate double the number of loans to place $200 million in loans. A doubling for the number of loans suggests that the sales force and support staff must increase, perhaps double, to accomplish this additional work.

The other expenses would also have to grow to accommodate the increased number of loans. These expenses include the fees for closing the loans, rent, legal services and other professional fees. Again, although these fees would increase, the increase is relatively trivial for the size of the AHELP Program.

For purposes of calculating the net profit, the Court estimates that all these expenses would double. This increase is somewhat imprecise to the Plaintiff's detriment because it is likely that expenses would not actually double. Economies of scale and increased efficiencies suggest that twice as much work is not required to produce twice as much revenue. Regardless of the imprecision, it is still reasonable that a sum of $23,264,000 as variable expenses should replace the sum that Arcy used, $11,632,000.

Because of the disagreement between the Court and Arcy on payments to first mortgagees, this component will also have to be adjusted. Arcy assumed that Energy

Capital would not pay first mortgagees anything as an incentive to consent to AHELP loans being placed on their properties. Tr. 2217. This assumption is false for non-Fannie Mae first mortgagees because as the Court previously discussed first mortgagees would be more agreeable if they receive financial compensation for their cooperation. Tr. 2171. In the Court's model, roughly 310 properties need consent from the first mortgagee. Payments to the first mortgagee would be about $885,000. This sum must be subtracted from Arcy's model as well.

When these two changes are made, the total cash outflow is $330,150,000. After deducting this amount from the total cash inflow, the net profit is $12,111,000 before discounting.

4. Analysis of Cash Flow

The preceding two sections have analyzed, in great detail, the potential inflows and outflows. It is possible that details have distracted from the larger picture.

The Court has found that Energy Capital would have placed loans for $200 million. *See* Section VII. Assuming that Energy Capital would have placed loans for $200 million, the next question is what is the profit on those loans. The profit comes from the spread, the difference between how much it costs Energy Capital to get the capital and how much Energy Capital sells the capital. This spread is 1.87 percent. The 1.87 percent spread on $200 million in loans is the gross profit for the loans.

From the gross profit, the Court must subtract the expenses associated with placing the loans. As discussed, some expenses vary with the number of loans. These expenses are reasonably estimated, although the Court admittedly is using an estimate different from the number used by the Plaintiff's expert.

The Court finds that Energy Capital has established that it would have earned a net profit of $12,111,000 on the AHELP loans, which have a duration of about 12 years. Since this profit would have been realized in the future, the Court must discount the figure to the present day to prevent a windfall for the Plaintiff.

C. Summary of Reasonable Certainty Analysis

The Court's finding that Energy Capital's lost profits were proven with reasonable certainty fits into the pattern of precedents about lost profits, starting with *Neely v. United States*, 285 F.2d 438, 443, 152 Ct. Cl. 137, 146 (1961) and *Neely v. United States*, 167 Ct. Cl. 407 (1964) a case where lost profits were awarded. The lease in *Neely* permitted the Plaintiff to mine coal from a 2,000 acre plot of land. *Neely I*, 285 F.2d at 439, 152 Ct. Cl. 139. The Plaintiff could, then, sell the ore to purchasers for a profit. The Court of Claims found that the Plaintiff established the amount of lost profit by introducing evidence of how much profit the Plaintiff's assignee earned when after actually mining the ore. *Neely I,* 285 F.2d at 443, 152 Ct. Cl. at 147. Although the United States emphasizes that the

Court of Claims affirmed the award of lost profits because of the performance by another party, *Neely* is not necessarily so limited.

When viewed from one perspective, the facts here compare to the facts in *Neely*. The Plaintiff in *Neely* had the right to use a specific resource --- the plot of land and the coal beneath it. The quantity of coal was finite and easily established. The amount of coal was an outer boundary on the Plaintiff's income. After all the coal was extracted, the Plaintiff could not generate any more income from this contract.

Likewise, Energy Capital had a chance to use a specific resource. The sum of $200 million is like the quantity of coal. Each loan Energy Capital originates is like extracting some of the ore. When the $200 million is depleted, Energy Capital cannot earn any more revenue from the contract. Therefore, this case is analogous to *Neely* in that the source of revenue is easily established.

In cases where lost profits were too speculative to be awarded, the revenue is unpredictable. For example, the Plaintiff in *L'Enfant Plaza Properties* sought lost profits for its inability to lease Washington D.C. office building space for 15 years. The Court found that evidence that the office space could be leased was insufficient, in part, because of the vagaries of the market for office space. *L'Enfant Plaza Properties, Inc. v. United States*, 3 Cl. Ct. at 590-91. *L'Enfant Plaza Properties*, therefore, represents a situation where the Plaintiff could not establish its source of revenue with certainty.

Similarly, in *Northern Paiute Nation*, the source of revenue was uncertain. The Plaintiff sought lost profits it would have earned by charging for access to an irrigation system that the United States had promised to construct for the Plaintiff. *Northern Paiute Nation v. United States*, 9 Cl. Ct. at 645-46. The court found that the Tribe could not establish the amount of money it could have earned because how the Tribe would have charged for access to this resource was undetermined. Accordingly, the court denied an award of lost profits. *Id.*

This case differs from *L'Enfant Plaza Properties* and *Northern Paiute Nation* in that Energy Capital proved that within 3 years of signing the AHELP Agreement, it would have completely consumed its source of revenue and reached the $200 million cap on loan origination. Thus, lost profits are reasonably certain. The AHELP loans, however, would have been repaid over the course of 10-12 years. Since Energy Capital would earn these lost profits in the future, the Court will address the issue of discounting.

IX. Discounting to Present Value

A. Introduction

As a consequence of finding that lost profits should be awarded, the Court must discount the sum of the lost profits to a present value.[37] The Court does so because the

[37] The Court believes that issues about discounting are separate from issues about reasonable certainty. The Plaintiff's accuracy in discounting does not affect whether it has

value of a particular sum of money presently held is greater than the value of the same sum of money to be received in the future. *LaSalle Talman Bank, F.S.B. v. United States*, 45 Fed. Cl. 64, 109 (1999). The Court's analysis is somewhat hampered because "[t]here is relatively little authority respecting the discount rate that should be used in reducing prospective damages to present value in actions for breach of contract." 8 Proof of Facts 2d, Discount Rate, § 8-1. *See also*, Peter Schulman, *Economic Damages: Discounting Concepts and Alternatives*, 28 Colo. Law. 41, 45 (1999).

In regard to discounting, the parties argue over two issues: the date to which lost profits are discounted and the discount rate. Their competing positions are presented in the chart below. The Court resolves these issues in favor of the Plaintiff.

Summary of Parties' Positions on Discounting		
	Plaintiff - Arcy	Defendant - Hisey
Net Cash Flow (dollars)	24,628,000	3,765,023
Discount Rate (percent)	10.5	25.0
Date of Discount	October 1, 1999	January 1, 2000
Total Lost Profits (Present Value) (dollars)	13,700,000	2,700,133

B. Date of Discounting

The Plaintiff argues that damages should be discounted back to the date of judgment. This is also referred to as discounting to the date of trial. "The concept of discounting future damages to the date of trial is sometimes referred to as 'ex-post' discounting." Peter Schulman, *Economic Damages: Discounting Concepts and Alternatives*, 28 Colo. Law. 41, 43 (1999). In contrast, the Defendant urges this Court to discount the damages back to the date of breach, which is February 14, 1997. "The concept of discounting future damages to the date of breach is sometimes referred to as 'ex-ante' discounting." *Id.*

The Court of Federal Claims has recently analyzed the law regarding the date to which a damage award is discounted within the context of a claim for replacement capital in a *Winstar*[38] case:

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calculated its lost profit damages with reasonable certainty.

[38] In *Winstar v. United States*, 518 U.S. 839, 116 S. Ct. 2432, 135 L. Ed.2d 964 (1996), the Supreme Court held that the United States breached contracts with financial institutions when Congress passed the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA). Since that opinion, the Court of Federal Claims has issued opinions in several

> The law in this circuit is that expectancy damages on an ongoing contract are not discounted to the date of breach. Instead, post-breach damages prior to the date of judgment are not discounted, and future damages (as of the date of judgment) are discounted by the rate of return on "conservative investment instruments."

LaSalle, 45 Fed. Cl. at 108-09 (citing *Northern Helex Co. v. United States*, 634 F.2d 557, 564, 225 Ct. Cl. 194, 205 (Ct. Cl. 1980); *Northern Helex Co. v. United States*, 524 F.2d 707, 722, 207 Ct. Cl. 862, 890 (1975)).[39]

With one clarification, this Court agrees with the holding of *LaSalle* because of the persuasiveness of the underlying reasoning, which is worth quoting:

> The general rule in this circuit is that "[t]he time when performance should have taken place is the time as of which damages are measured." *Reynolds v. United States*, 141 Ct. Cl. 211, 220, 159 F. Supp. 719, 725 (1958). In many cases, the appropriate date for calculation of damages is the date of breach. *See Estate of Berg v. United States*, 231 Ct. Cl. 466, 469, 687 F.2d 377, 380 (1982); *Cavanagh v. United States*, 12 Cl. Ct. 715, 718 (1987); *Northern Paiute Nation v. United States*, 9 Cl. Ct. 639, 643 (1986); *see also Northern Helex II*, 524 F.2d at 721 (holding that an offset to lost profits based upon the excess value of a physical plant is determined by measuring the fair market value of the plant at the time of breach). But that rule does not apply to anticipated profits or other expectancy damages that would have accrued on an ongoing basis over the course of the contract, absent the breach. In these circumstances, damages are measured throughout the course of the contract. To prevent unjust enrichment of the plaintiff, the damages that would have arisen after the date of judgment must be discounted to the date of judgment. *See Northern Helex III*, 634 F.2d at 564 (discounting the portion of anticipated profits that would have arisen after the date of judgment).

LaSalle, 45 Fed. Cl. 108-09 n.66.

This Court agrees with *LaSalle*'s interpretation of *Northern Helex III*, 634 F.2d at 564, 225 Ct. Cl. at 205, a decision of the Court of Claims, which is binding precedent.

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different cases about the amount of damages to which the financial institution is entitled.

[39] "Ongoing contract" means one, as in this case, in which damages would have accrued on an ongoing basis over the course of the contract, absent the breach. That is, the Plaintiff would have earned money after the date of judgment.

Northern Helex III discounted the amount of $34,175,989 to October 31, 1980 at a rate of 9 percent and arrived at a figure of $33,457,400. *Northern Helex III*, 634 F.2d at 564, 225 Ct. Cl. at 204-5. It is apparent that the undiscounted sum ($34,175,989) represented lost profits for 13 years from 1970 to 1983. The lost profits for approximately 3 years (from 1980 to 1983) were "future" lost profits in that the profits would have been earned after the date of final judgment.

LaSalle accurately states the law from *Northern Helex* in regard to future lost profits: these damages must be discounted to the date of judgment.

This Court clarifies one small point that is implicit in *LaSalle*. Discounting is required only when the Plaintiff is recovering money it would have earned after the date of judgment.[40] *LaSalle* says as much, although in slightly different terminology, when it says discounting is used for "expectancy damages that would have accrued on an ongoing basis over the course of the contract, absent the breach." *LaSalle*, 45 Fed. Cl. 108-09 n.66.

This passage could create confusion when the Plaintiff is seeking "past" lost profits. "Past" lost profits are those profits that would have been earned after the breach but before the date of judgment. Past lost profits are damages that would fit within *LaSalle's* language because they would "accrue on an ongoing basis over the course of the contract." *Id.* Past lost profits cannot be "discounted" to the date of judgment because that would be mathematically impossible. But, past lost profits could be discounted to the date of breach. Some jurisdictions call for discounting to the date of breach when prejudgment interest is also awarded. *See, e.g., Jones & Laughlin Steel Corp. v. Pfeifer*, 462 U.S. 523, 538 n. 22, 103 S. Ct. 2541, 2551 n. 22, 76 L. Ed.2d 768, 784 n. 22 (1983); *Navistar International Transportation Corp. v. Pleasant*, 887 P.2d 951, 959 (Alaska 1994) ("[i]f future damages were discounted back to the time of injury, it would be appropriate to allow prejudgment interest on future damages so discounted."). But this Court is not aware of any cases in the Federal Circuit that require discounting to the date of breach. Accordingly, this Court understands *LaSalle* to say that discounting, to the date of judgment, is appropriate for those damages that would have been earned in the future when viewed from the perspective of the date of judgment.[41]

The efforts by the United States to argue against discounting to the date of judgment and against *LaSalle* are unpersuasive. First, the United States notes that *LaSalle* discusses the date of discount in the context of the cost of replacement of capital after specifically rejecting the Plaintiff's claim for lost profit. Although it is true that *LaSalle*

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[40] Discounting is based on a premise that a dollar possessed today is worth more than a dollar paid tomorrow. When the Plaintiff is not seeking "tomorrow's dollars," discounting is not necessary because the Plaintiff will not receive a windfall.

[41] *LaSalle*, itself, recognizes that in *Northern Helex* "[n]o discount was applied to lost profits for the period from the breach through the date of judgment." *Id.* at 109 n.67.

discusses the discount date in this context, the United States presents no argument why this fact makes any difference. *LaSalle* establishes when the date on which future damages are discounted. *LaSalle's* rule applies with equal force regardless of whether the damages are for lost profits or for the cost of replacement capital.

The United States also makes a second argument that *LaSalle's* comments should not be followed because they are dicta. The United States, again, is partially correct in that *LaSalle* did not actually award any damages for the cost of replacement capital. But, this outcome does not affect the strength of *LaSalle's* reasoning. *LaSalle* examines the binding precedent and its analysis is persuasive. This Court sees no reason to deviate from *LaSalle*'s statement of the law, except for the small point discussed with regard to past lost profits.

Accordingly, the Court holds that the future lost profits[42] should be discounted to the date of judgment, not to the date of breach.

C. Rate for Discount

1. Parties' Arguments

Another issue related to discounting, but separate from the date of discounting, is the rate of discounting. The discount rate reflects the concept that the money awarded today will accumulate interest and grow to approximate the money that the Plaintiff would have earned in future lost profits over the course of the contract.

The parties endorse different rates. The Plaintiff, itself, has advanced two different theories. At trial, the Plaintiff presented Arcy's model that used a discount rate of 10.5 percent. In post-trial briefing, the Plaintiff argued that *LaSalle* used a risk-free rate of return, which *LaSalle* suggested was the current rate of interest on Treasury securities. *LaSalle*, 45 Fed. Cl. at 109, n. 69. The Defendant contended that the discount rate must account for some element of risk and proposed that the discount rate should be 25 percent.

2. Burden of Proof on Rate of Discount

The law as to whether the burden of proof is on the Plaintiff or Defendant is unsettled. *See, e.g., Gorniak v. National R.R. Passenger Corp.*, 889 F.3d 481, 486 (3rd Cir. 1989) (placing burden on Plaintiff); *Alma v. Manufacturers Hanover Trust Co.*, 684 F.2d 622, 626 (9th Cir. 1982). Two recent state court decisions squarely addressed this issue. Both placed the burden on the Defendant. *Wingad v. John Deere & Co.*, 523 N.W.2d 274, 278 (Wisc. App. 1994); *CSX Transp., Inc. v. Casale*, 441 S.E.2d 212, 216 (Va. 1994) (relying on *Chesapeake & Ohio Ry. v. Kelly*, 241 U.S. 485, 489, 36 S.Ct. 630, 631, 60 L.Ed 1117 (1916)).

[42] According to Arcy's model, the Plaintiff would not make profit for a year until 1999. Thus, almost all profits are future lost profits.

The Court agrees with the reasoning in the cases that place the burden on the Defendant. The reduction to present value lessens (or mitigates) the damages paid by the Defendant. Since the Defendant benefits from the discounting procedure, it is fair to place the burden of presenting the evidence to the court on the Defendant. *CSX Transp.*, 441 S.E.2d at 216.

3. Court's Ruling

The Court holds that the appropriate discount rate is the rate of return on "conservative investment instruments." *Northern Helex III*, 634 F.2d at 564, 225 Ct. Cl. at 205; *see also LaSalle*, 45 Fed. Cl. at 109 (quoting same).

The statement in *Northern Helex III* that equates the discount rate with the return on conservative investment instruments remains binding on this Court. Although the Court of Claims does not explain its reasoning, its decision is clear and must be followed. Given that the discount rate should equal the return on conservative investment instruments, the question is what is the return on conservative investment instruments? In its discussion of *Northern Helex III*, *LaSalle* accepted the premise that "conservative investment instruments" are Treasury securities. *LaSalle*, 45 Fed. Cl. at 109. Unlike the situation in *LaSalle*, neither party presented this evidence.

The Court holds that the rate of return on Treasury securities is a subject for which judicial notice is appropriate. *Levan v. Capital Cities / ABC, Inc.*, 190 F.3d 1230, 1235 n. 12 (11th Cir. 1999) (taking judicial notice of prime interest rate); *Havens Steel Co. v. Randolph Engineering Co.*, 813 F.3d 186, 189 (8th Cir. 1987) (stating "[a] prevailing rate of interest is a proper subject of judicial notice."); *See also, Alcea Band of Tillamooks v. United States*, 87 F. Supp. 938, 954, 115 Ct. Cl. 463, 518 (Ct. Cl. 1950) (taking judicial notice of low interest rates during 1930's), *rev'd on other grounds*, 341 U.S. 48, 71 S. Ct. 552, 95 L. Ed. 738 (1951). The Court finds that this rate of return is 5.90 percent. *See* "Key Interest Rates," *The Wall Street Journal*, August 15, 2000, at C20 (listing interest rate for 10-year Treasury notes with constant maturity.) This rate reflects a risk-free rate of return, as required by *Northern Helex III*.

Notwithstanding *Northern Helex III*, the Defendant presents a cogent argument for why the discount rate should consider the riskiness of the endeavor. Undoubtedly, the Defendant will present its argument to the Federal Circuit, a court with the authority to overrule *Northern Helex III*.

The Federal Circuit may determine that, as a matter of law, trial courts should consider the riskiness of the project in establishing the discount rate. The Defendant cites *In re Lambert*, 194 F.3d 679, 681 (5th Cir. 1999); *Douglass v. Hustler Magazine, Inc.*, 769 F.2d 1128, 1143 (7th Cir. 1985); and *Schonfeld v. Hilliard*, 62 F. Supp.2d 1062, 1074 n.6 (S.D.N.Y. 1999), all cases where the discount rate was affected by the risks. This Court believes that the assessment of the riskiness of the investment is a question of fact. Hence, the Court will make findings of fact related to this issue. These findings, however, are useful only if the Federal Circuit holds that the discount rate is something other than the rate on conservative investment instruments.

4. Court's Alternative Findings of Fact

If the discount rate should reflect the riskiness in the AHELP Program, then the discount rate should be 10.5 percent. This is the discount rate proposed by the Plaintiff's expert, Arcy. The Court expressly rejects the discount rate (25 percent) offered by the Defendant's expert, Hisey.

Once the Court does not have to set the discount rate equal to the return on conservative investment instruments, the discount rate is a question of fact. *Gallapsy v. Warner*, 324 P.2d 848, 853 (Okla. 1958). In determining the discount rate, the Court will examine all pertinent facts, including the riskiness of the Plaintiff's business.

Certain risks independent of the Defendant's breach existed when the Defendant breached the contract.[43] Investors in 1997 (before the breach) would be unlikely to invest money in the AHELP Program at a rate of return equal to the Treasury rate, which was approximately 5.5 percent. This trepidation is justified because the investors would fear that the Program would not succeed. Thus, there is a risk that the investors would lose all their money. Further, if the investors were content to earn only 5.5 percent interest, the investors would select Treasury notes because Treasury notes are "risk free." In short, a potential profit rate higher than that of conservative investments is necessary to attract investors to AHELP because AHELP has risks of failure.

The Court finds that a discount rate of 10.5 percent is appropriate. This rate is based on Arcy's analysis of mortgage REITs.[44] Using mortgage REITs as a baseline is appropriate because a mortgage REIT would be interested in acquiring the AHELP Program. During the appropriate time, the average dividend yield for mortgage REITs

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[43] In acknowledging the presence of risks, the Court might be understood as saying that profits were unlikely. This meaning is not intended.

The Court has found, in Section VII and Section VIII, above, that the Plaintiff has established its claim for lost profits with "reasonable certainty." This requirement is based on reasonableness, not absoluteness.

One example is the issue of first mortgagee consent. At the time of termination, there was a risk that zero first mortgagees would not consent. If this risk came to fruition, then the AHELP Program for Field Notice properties would fail. This risk, however, is small and does not prevent the Court from finding that it is reasonably certain that most first mortgagees would consent.

[44] A "real estate investment trust" ("REIT") is a legal entity recognized by the Internal Revenue Code. A mortgage REIT is a REIT that chooses to own mortgage interests in real estate, as opposed to owning the real estate directly. Tr. 1981.

was approximately 8.5 percent. Tr. 2054. Arcy then added 2 percent to account for the debt component and profit component.

The approach taken by Hisey, in contrast, was not persuasive. Hisey considered the AHELP Program to be a form of specialized lending. Hisey, accordingly, averaged the returns of five specialized lending companies.

Hisey's opinion was far from credible because: first, the selection of specialized lending companies, and second, the method of selecting the particular companies within the specialized lending industry. Tr. 3804 et seq.

The AHELP Program is not analogous to the specialty lending industry. Therefore, Hisey's comparison is flawed. Specialty lenders, predominantly, lend to consumers, not commercial ventures. Some consumer loans are "sub-prime," that is, the loans reflecting a higher degree of credit risk. Because the lending risk to consumers is greater than the risk in lending to commercial entities, these lending companies offer the potential for greater returns. AHELP, itself, was a commercial venture and therefore a comparison to consumers is not appropriate.

Even more problematic than the use of the field of "specialty lending" was Hisey's selection of the particular lenders within this field. Hisey picked only five companies, although the Specialty Lender Yearbook, listed industry medians. PX 147. The five companies, also, had the highest returns of any companies within their particular category of consumer specialty lenders. The combined force of using only five companies and then using only the companies with the highest return strongly suggests that Hisey was not analyzing the situation dispassionately. Instead, the Court is left with a strong impression that Hisey distorted these numbers to achieve a result. In this regard, the Plaintiff's cross-examination of Hisey was very effective.

Since Hisey's method is discredited and Arcy's method is reasonable, the Court accepts the discount rate proposed by Arcy. Thus, if the discount rate needs to consider the riskiness of the venture, the cash flows should be discounted by 10.5 percent.

5. Conclusion on Discount Rate

The Court believes that discounting the future damages to a present value is necessary to avoid a windfall recovery to the Plaintiff. The Court does so even though the party with the burden of proving the discount rate, the Defendant, has failed to present credible evidence of the discount rate.

Several factors justify the use of a discount rate. Fundamentally, the law requires discounting of future damages. *Northern Helex III*, 634 F.2d at 564, 225 Ct. Cl. at 205. Almost as importantly, the values of fairness and equity suggest that the Plaintiff should not receive more than it deserves simply because the Defendant erred in a small respect.[45]

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[45] The Court, roughly, took this same approach when it recalculated the Plaintiff's lost profits despite the Plaintiff's erroneous estimate of its expenses.

Finally, the parties themselves agreed that discounting was appropriate; the parties differed only with respect to the discount rate. Therefore, the present case is not comparable to those cases where the Defendant's failure to produce *any* evidence about the need to discount future damage awards waived its right to discounting. *See, e.g., Wingad v. John Deere & Co.*, 523 N.W.2d at 278; *Alma v. Manufacturers Hanover Trust Co.*, 684 F.2d 622, 626 (9th Cir. 1982).

In sum, the Court will discount at a rate of 5.9 percent.

D. Calculating Present Value

1. Procedural Posture

The Court has now reached a dilemma. The Court has found the three variables for calculating the present value: total cash flow, the date of discount, and the discount rate. Accountants, like Arcy or Hisey, (or the computer spreadsheet used by accountants) could easily take the three variables and calculate the present value to the penny. The Court, however, does not have the benefit of this precision.

As part of the post-trial briefing, the Court requested that the parties address the issue of whether the Court has the authority to find facts and then to instruct the parties to present their calculations of damages. The Plaintiff cited the following cases as examples when courts have required the parties to re-calculate damages based on different assumptions: *Gargoyles, Inc. v. United States*, 37 Fed. Cl. 95, 109-10 (1997) (after conducting a bench trial on damages, court issued findings of fact and ordered parties to calculate the amount of damages in accordance with the court's findings, and then file a stipulation of judgment in that amount within twenty days); *Kit-San-Azusa, J.V. v. United States*, 32 Fed. Cl. 647, 650 (1995) (after evidentiary record on damages was closed, Court of Federal Claims issued preliminary findings and directed parties to "attempt to agree on a calculation of the precise amount of the judgment necessary to effectuate the opinion"; when parties were unable to reach such an agreement, the remaining issues were briefed and argued and court adopted plaintiff's post-trial calculation of damages), *aff'd in part and modified in part on other grounds*, 86 F.3d 1175 (Fed. Cir. 1996) (table); and *United California Bank v. Eastern Mountain Sports, Inc.*, 546 F. Supp. 945, 973 (D. Mass. 1982) (parties ordered to confer to determine if they could reach agreement on the amount of the judgment to be entered in conformity with the court's findings and rulings; if no agreement could be reached, each side required to submit to the court its proposed calculation of the judgment to be entered).

The Defendant did not assert a position as to whether this Court has the authority to return the case to the parties for additional damages calculations. (Although given an opportunity, the Defendant did not directly address the cases cited by the Plaintiff and listed above.) Rather, the United States contends that it would be prejudiced by having to recalculate the damages. The United States sees that it could have to incur the additional cost of retaining an expert (presumably, Hisey) to recalculate the damages, of deposing the Plaintiff's expert (presumably, Arcy) on his recalculation of damages, and of presenting this information to the Court.

Also as part of the post-trial briefing, the Court requested that the parties address the issue of a court's ability, in a bench trial, to estimate damages when the Court rejects the assumptions used by the parties. The Defendant argued that the Plaintiff has failed to present any evidence for the Court to calculate lost damages based on a partial acceptance of its evidence. (For example, the Defendant contends that the Plaintiff should have presented evidence of lost profit on a "per loan" basis.) Since the Plaintiff presented an "all or nothing" case and the Plaintiff is not entitled to "all," according to the Defendant, the Plaintiff is entitled to "nothing."

The Court rejects the Defendant's argument as far too harsh. The law has advanced beyond a stage where a single small slip would cause the Plaintiff's case to fail entirely. For example, in *White Mountain Apache Tribe of Arizona v. United States*, 11 Cl. Ct. 614, 663-67 (1987), the court analyzed the reports of experts from both sides. "Neither side was able to persuade the court to adopt its measure of damages in its entirety, because both presentations suffered to some extent from shortcomings in their underlying assumptions." *Id.* at 663. Utilizing "the jury method," the court overcame these shortcomings and awarded $3,627,000 in damages. *Id.* at 666-67. *White Mountain Apache* demonstrates that this Court has the authority to evaluate damages and to calculate damages differently than either party.

Accordingly, the Court will undertake the task of discounting the future lost profits to a present value. With the aid of a standard computer spreadsheet, the Court can do so even without an accountant. In doing so, the Court does not address the issue as to whether the Court has the authority to instruct the parties to calculate damages in accordance with certain factual findings.

2. Calculations

The Court notes that through Arcy, the Defendant introduced the formula for discounting to present value. *See* Tr. 2100-01. Moreover, the Court can take judicial notice of the formula for calculating the present value.[46] *In re Eagle-Picher Industries, Inc.*, 189 B.R. 681, 692 (S.D. Ohio 1995) (setting out formula); *Osborne v. Bessonette,* 508 P.2d 185, 187 (Or. 1973).

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[46] Although the Defendant argued, in closing argument, that the Plaintiff had the burden of proving the discount rate, the Court holds that the burden is actually on the Defendant. *See* Section IX.C.2, above. While the Court has tried to be as accurate as possible, the fact that the Court is discounting at all is to the Defendant's benefit.

The Court's method for calculating the present value is set forth in detail in Appendix A, which is attached to and incorporated into the opinion. By using a "reasonable computation from actual figures," the Court has avoided resorting to a "jury verdict method." *See Dawco Const., Inc. v. United States*, 930 F.2d 872, 880 (Fed. Cir. 1991) (stating the jury verdict method is not favored), *overruled in part on other grounds*, *Reflectone, Inc. v. Dalton*, 60 F.3d 1572, 1578 (Fed. Cir. 1995).

The Court finds that the approximate present value of $12.11 million at a discount rate of 5.9 percent is $8.787 million. When the discount rate is 10.5 percent, the approximate present value is $7.132 million.

X. Mitigation of Damages

A. Introduction

A final issue to be addressed in the context of lost profits is mitigation of damages. The Defendant contends that the Plaintiff could have mitigated its damages by pursuing other programs like the AHELP Program with states, notably New York, that subsidize housing. The Court finds that the mitigation of damages was not possible and rejects the Defendant's argument.

B. Law

"It is clear that a nonbreaching party has a duty to attempt to mitigate its damages following another party's breach of contract . . . . As such, the nonbreaching party may not recover those damages which could have been avoided by reasonable precautionary action on its part." *Quiman, S.A. v. United States*, 39 Fed. Cl. 171, 185-86 (1997) (internal quotation marks and citations omitted).

"It is well established that the party relying on the doctrine of mitigation of damages bears the burden of proving that the nonbreaching party failed to take reasonable precautions to limit the extent of the damage. *Toyota Indus. Trucks U.S.A., Inc. v. Citizens Nat'l Bank*, 611 F.2d 465 (3d Cir. 1979); *T.C. Bateson Constr. Co. v. United States*, 162 Ct. Cl. 145, 188, 319 F.2d 135, 160 (1963)." *Midwest Indus. Painting of Florida, Inc. v. United States*, 4 Cl. Ct. 124, 134 (1983). *See also* Restatement (Second) of Contracts § 350, cmt. c (placing burden on breaching party to show substitute transaction was possible).

C. Background Facts Related to Mitigation

While Energy Capital was developing the AHELP Program, even before the AHELP Agreement was signed, Energy Capital was planning to involve state housing agencies. Recapitalization Advisors identified 10 states (Connecticut, Massachusetts, Pennsylvania, Wisconsin, Illinois, Michigan, Rhode Island, Maryland, New York and Virginia) as being possible participants in the AHELP Program.

New York was a potentially promising market for a program like AHELP. Unlike the other states mentioned above, New York created some housing agencies before HUD was established. The apartments regulated by New York operate free of HUD regulation. David Smith estimated that there are 102,000 such units, in 248 properties. Many New York apartments suffer from energy inefficiencies that would make them candidates for an energy-improvement loan.

After the AHELP Agreement was signed, Energy Capital began exploring whether the State of New York would be receptive to a program to finance energy-efficiency improvements in housing that was assisted by New York. Energy Capital called this program NYHELP. Neither party presented any evidence as to how far Energy Capital progressed in convincing New York to be its partner in NYHELP.

HUD terminated the AHELP Agreement in February 1997, following the adverse publicity in *The Wall St. Journal*. Energy Capital abruptly stopped its efforts to establish NYHELP shortly after HUD terminated the agreement. Fred Seigel, the president of Energy Capital, believed that further work with New York would be pointless for two reasons. First, *The Wall St. Journal* article and HUD's reaction to the article, which could be viewed as confirming the article, tainted Energy Capital's reputation. Second, Andrew Cuomo, the Secretary of HUD, is the son of Mario Cuomo, the former governor of New York. Many New York government officials, according to Energy Capital, would be reluctant to conduct business with a company that had caused difficulty for the son of their former boss. Accordingly, since Energy Capital believed that New York officials would be unlikely to agree to NYHELP, Energy Capital ceased its efforts to start a program for New York properties exclusively.

D. Arguments and Analysis

The Defendant argues that the NYHELP Program could have replaced the AHELP Program and allowed Energy Capital to mitigate its damages. The proof offered on this point is woefully deficient.

First, and most importantly, the Defendant did not contradict Energy Capital's explanation of why it did not pursue the NYHELP Program. Energy Capital's decision to stop its efforts was reasonable. The Court agrees that New York officials would not agree to the NYHELP Program. The Defendant did not present any evidence, such as a witness from a New York housing agency, that New York was interested in NYHELP after HUD terminated the Agreement. This omission, by itself, is enough to justify the Court's finding that mitigation was not possible.

Second, the amount of money Energy Capital could have earned in the NYHELP Program was never established. In his expert report, David Smith opined that Energy Capital could generate about $57 million in loan revenue. This opinion is based on the same assumptions used for his estimates of loan revenue for the Program in general.[47] The Defendant challenged many of these assumptions and the Court, to some extent, changed the assumptions. When the Court's own findings are substituted, the NYHELP Program would generate only $21.5 million in loan revenue.[48]

The Defendant also submitted deposition testimony from Smith in which he predicts that Energy Capital could have generated $175 million in loans. This assumption is based on an average loan size of $5,000 and 35,000 properties participating. For 35,000 properties out of 102,000 properties participate, the *total* for energy viability and owner participation would need to be about 66 percent. This figure is significantly higher than all other estimates (about 3 times the estimate in Smith's report and about 4.5 times the estimate in the Court's findings) and no justification for such high participation is presented. Accordingly, the Court rejects Smith's deposition testimony, which is not in his expert report, that the loan volume would have amounted to $175,000,000.

Even if the loan volume were established, the Defendant did not take the next step to establish Energy Capital's earnings. As the Court's opinion indicates in Section VIII, above, loan volume is not the same as earnings. The Defendant's suggestion that Energy Capital could have generated $175 million (or $57 million or $21.5 million) completely overlooks expenses. To justify its own claim for lost profits, Energy Capital used Arcy to develop a cash flow model that accounts for income and expenses. The United States offered nothing like that.[49] Accordingly, the Court cannot calculate how much Energy Capital would have gained from the NYHELP Program.

In sum, the Court finds that Energy Capital could not have mitigated its damages by pursing the NYHELP Program. Energy Capital's damages, therefore, do not have to be reduced by the amount of mitigation.

XI. Recovery of Lost Profits beyond $200 million limit

A. Introduction

In addition to seeking damages based on the assumption that Energy Capital would sell all loans available under AHELP, Energy Capital presented a theory that the AHELP Program would be so successful that HUD would agree to another contract. This theory

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[47] These assumptions were that 24 percent of the properties were energy viable, an owner participation rate of 53 percent, and an average loan size of $4,400.

[48] The Court finds, elsewhere in this opinion, that 16 percent of the properties were energy viable, an owner participation rate of 46 percent, and an average loan size of $2,800.

[49] Although the Court could be asked to assume that Energy Capital's expenses for NYHELP would equal its expenses for AHELP, this assumption is not warranted. NYHELP was not an existing agreement. Energy Capital would have to incur expenses to create NYHELP. The Court has no basis to estimate these start-up costs.

provides a method for the Plaintiff to recover lost profits on loans that would have been generated after the $200 million limit was exceeded.

The Plaintiff presented some evidence to support its contention that it and HUD would enter into another AHELP-type agreement after AHELP itself expired. As described in some detail in the earlier sections of this opinion, Energy Capital believed that the market for energy-efficiency loans within the government-assisted multifamily housing universe was almost unlimited. Indeed, Retsinas himself testified that the $200 million was merely the tip of the iceberg. Parties from both sides testified that each anticipated that, if the Program were successful, then the Program might be extended.

During trial, the Court, however, found that the Plaintiff's evidence was insufficient to authorize an award on this theory. Accordingly, the Court declined to award any damages that would expand the scope of the AHELP Agreement beyond the $200 million limit. The next sections explain the Court's decision.

B. Procedural Setting

At the close of the Plaintiff's case in chief, the Defendant made an oral motion under R.C.F.C. 52(c). The United States contended that the Plaintiff had failed to establish that it could recover lost profits beyond the $200 million limit in AHELP.

Before addressing the Defendant's Rule 52(c) motion, the Court resolved a preliminary procedural point in favor of the United States. The Plaintiff contended that the Rule 52(c) motion was not proper. During the Plaintiff's case-in-chief, the Defendant moved for the admission of one document into evidence during cross-examination of a witness called by the Plaintiff. The Court, without objection, admitted the document and the Defendant was permitted to elicit substantive testimony from the witness. In a motion to strike the Rule 52(c) motion, the Plaintiff contended that once the Defendant has introduced evidence, the Defendant cannot seek a Judgment on Partial Findings under Rule 52(c).

The Court denied the Plaintiff's Motion to Strike. The Defendant may file a Rule 52(c) motion any time after the Plaintiff has rested even if the Defendant has introduced evidence.

The text of Rule 52(c) states, in part: "If during a trial a party has been fully heard with respect to an issue and the court finds against the party on that issue, the court may enter judgment as a matter of law against that party on any claim." R.C.F.C. 52(c). The only restriction in Rule 52(c) is that the opposing party must be "fully heard." In this case, the Plaintiff completed it case in chief. Therefore, the Defendant's motion was procedurally correct.

A comparison to the Federal Rules of Civil Procedure supports the Court's interpretation of R.C.F.C. 52(c). With respect to only the issue of the timing of the motion, R.C.F.C. 52(c) is analogous to Fed. R. Civ. Proc. 50(a)(1), which permits judgment as a matter of law in jury trials.[50] Fed. R. Civ. Proc. 50(a)(1) states, in part: "If during a trial by jury *a party has been fully heard on an issue* and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue, the court may determine that issue against that party." Fed. R. Civ. Proc. 50(a)(1) (emphasis added). The italicized language is almost verbatim the language in the Rule of the Court of Federal Claims.

Under Fed. R. Civ. Proc. 50(a)(1), a party may file this motion after the close of all evidence. *See Moore's Federal Practice* (3d Ed.) § 50.20[2][e]. Since a party may file a motion under Fed. R. Civ. Proc. 50 after it has presented all its evidence, it is logical to permit that same party to file the motion after it has presented only some of its evidence. The decisive consideration is whether the non-moving party has been fully heard. When the non-moving party has been fully heard, as in this case, a motion under R.C.F.C. 52(c) is appropriate.

C. Standard for Rule 52(c)

Cooper v. United States, 37 Fed. Cl. 28 (1996), sets forth the standard for ruling on a motion for judgment partial findings pursuant to R.C.F.C. 52(c):

> In the Court of Federal Claims, the judge serves as both the trier of fact and the trier of law. Accordingly, R.C.F.C. 52(c) envisions a different role for the judge than does Fed. R. Civ. P. 50(a). *See Persyn v. United States*, 34 Fed. Cl. 187, 194-95 (1995). A judge ruling on a Rule 52(c) motion does not evaluate merely whether the plaintiff has put forth a prima facie case. Instead, R.C.F.C. 52(c) permits the judge to weigh the evidence and does not require that the judge resolve all credibility determinations in favor of the plaintiff. *Howard Indus., Inc. v. United States*, 126 Ct. Cl. 283, 289-90, 115 F. Supp. 481, 484-85 (1953); *Cities Serv. Pipe Line Co. v. United States*, 4 Cl. Ct. 207, 208 (1983) (discussing former RUSCC 41(b)), *aff'd*, 742 F.2d 626 (Fed. Cir. 1984). As the United States Court of Claims explained:
>
> > The so-called *prima facie* case rule governing the action of judges in jury trials rests upon the established division of functions, in such proceedings, between jury and judge, whereby the jury tries the facts and the judge determines the law . . . .
> >
> > But in an action tried without a jury the judge is the trier of both the facts and the law. This fundamental distinction between jury and non-jury trials should not be ignored . . . . When a court sitting without a jury has heard all of the plaintiff's evidence, it is appropriate that the court shall then determine whether or not the plaintiff has

[50] Because there are no jury trials at the Court of Federal Claims, the Rules of Procedure for the Court of Federal Claims omit this rule.

> convincingly shown a right to relief. It is not reasonable to require a judge, on motion to dismiss under Rule 41(b) [precursor to RCFC 52(c)], to determine merely whether there is a prima facie case. . . sufficient for the consideration of a trier of the facts when he is himself the trier of the facts. * * * A plaintiff who has had full opportunity to put on his own case and has failed to convince the judge, as trier of the facts, of a right to relief, has no legal right under the due process clause of the Constitution, to hear the defendant's case, or to compel the court to hear it, merely because the plaintiff's case is a prima facie one in the jury trial sense of the term.
>
> *Howard Indus.*, 126 Ct. Cl. at 289-90, 115 F. Supp. at 485-86 (quoting *United States v. United States Gypsum Co.*, 67 F. Supp. 397, 417-18 (D.D.C. 1946), *rev'd on other grounds*, 333 U.S. 364, 68 S. Ct. 525, 92 L. Ed. 746 (1948)).

Cooper v. United States, 37 Fed. Cl. 28, 35 (1996).

D. Findings and Analysis

The parties agreed to one contract, the AHELP Agreement. This contract states that the Agreement is limited to either 3 years or $200 million in loans, whichever occurs first.

HUD officials, in particular Retsinas, did not agree to expand the AHELP Program past the $200 million limit. It is undisputed that Retsinas was the only person within HUD with the authority to enter into the AHELP Agreement. Retsinas testified that he could see that if the AHELP Program were successful in the initial $200 million, then HUD would be interested in continuing to contract with Energy Capital because the portfolio of properties that needed energy assistance exceeded $200 million. Tr. 1827, 1838.

The Plaintiff's arguments that it is entitled to lost profits beyond $200 million limit are not sustainable. The Plaintiff argues that the test is whether the parties could reasonably foresee the damages when the contract was made. The Plaintiff argues that its evidence shows that Energy Capital expected to enter into a series of AHELP-like contracts. Thus, to the Plaintiff lost profits from these future contracts are reasonably foreseeable from the breach of the AHELP Agreement.

This argument eviscerates the terms of the AHELP Program. The express terms restrict the contract to $200 million. If the parties were bound only by their expectations, then the cap would be unnecessary and worthless. The Court should avoid construction of a contract that renders any term meaningless. *T. Brown Constructors, Inc. v. Pena*, 132 F.3d 724, 730-31 (Fed. Cir. 1997).

The Plaintiff's unilateral expectations, when it entered into the AHELP Agreement, about the possibility that it would have another contract with HUD differ from its expectations for the AHELP Agreement itself. One difference is that there was a contract.

The AHELP Agreement is a foundation for the Plaintiff's hopes for the events under the AHELP Agreement, which are not those events after the AHELP Program is completed. In contrast, nothing anchors the Plaintiff's expectations for events after the AHELP Program is completed.[51] The parties could not "foresee" (as that term is used in a legal sense) that the breach of the AHELP Agreement would result in the loss of profits on a subsequent contract.

Besides foreseeability, the Plaintiff failed to established causation. Many other steps could have interfered with the formation of an agreement subsequent to AHELP. For example, HUD intended to evaluate the success of the AHELP Program. HUD may have decided, for whatever reason, that the Program was not worth continuing. The Court says this, even after finding that AHELP would have "succeeded," in that, property owners would have sought energy improvement loans, first mortgagees would have consented to the loans being placed on their properties, and Energy Capital would have earned a profit. Even if the AHELP Program would have accomplished all these goals, HUD retained the right to examine whether it would want to continue the Program. HUD, not this Court, determines whether it will enter into a contract. *See Parcel 49C Limited Partnership v. United States*, 31 F.3d 1147, 1153-54 (Fed. Cir. 1994). Based on the record before the Court, this Court cannot say that HUD would have agreed to another AHELP-like contract absent the breach.

In sum, the Court finds that the Plaintiff failed to present evidence, during its case in chief, to support an award of lost profits for contracts beyond the $200 million cap for several reasons. Principally, the AHELP Agreement is limited to $200 million. Secondarily, the Plaintiff has not established foreseeability and causation.[52]

XII. Reliance Damages

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[51] Whether the Plaintiff's expectation is based on a contract distinguishes this case from *Smokey Bear, Inc. v. United States*, 31 Fed. Cl. 805 (1995), a case on which the Plaintiff relies. In *Smokey Bear*, the licensing agreement, which the Defendant allegedly breached, "was renewable after the initial three-year term." *Id.* at 806. In denying a motion to dismiss, the Court permitted the Plaintiff to introduce evidence of its lost profits. *Id.* at 808.

A licensing agreement that contains a renewable provision differs from a contract with a set termination. The Plaintiff in *Smokey Bear* could state a claim that the breach of the licensing agreement prevented it from renewing the agreement. Here, Energy Capital cannot expect that it would have another contract.

[52] The reasons given in the opinion suffice to deny the Plaintiff's claim for lost profits. The Court has not commented on the Plaintiff's evidence for "reasonably certainty." This silence is not intended as a statement, in favor of either party, as to the sufficiency of this evidence.

As an alternative to its claim for expectancy damages, measured by lost profits, the Plaintiff also claims reliance damages.[53] The Defendant contends that reliance damages are the correct approach to measuring the Plaintiff's damages, but questions some components of the Plaintiff's list of costs.

A. Law for Reliance Damages

California Federal Bank v. United States, 43 Fed. Cl. 445 (1999), states the basic principles of reliance damages:

> Reliance damages seek to place the plaintiff "in as good a position as he would have been in had the contract not been made." Restatement (Second) of Contracts § 344(b) (1981). Reliance damages include expenditures made "in preparing to perform, in performing, or in foregoing opportunities to make other contracts." Restatement (Second) of Contracts § 344 cmt. a (1981). This relief is awarded on "the assumption that the value of the contract would at least have covered the outlay." Charles T. McCormick, Handbook on the Law of Damages § 142, at 586 (1935). Normally, the plaintiff seeks reliance damages when unable to prove expectancy with reasonable certainty because "failure to prove profits will not prevent the party from recovering his losses for actual outlay and expenditure." [*United States v.*] *Behan*, 110 U.S. [338,] 345, 4 S.Ct. 81, [28 L.Ed. 168 (1884)].

California Federal Bank v. United States, 43 Fed. Cl. 445, 450 (1999); *see also* John D. Calamari & Joseph H. Perillo, *The Law of Contracts* § 14.9. (4th ed.)

Within this sphere of "reliance damages," the Plaintiff argues that it is entitled to recover expenses incurred before the contract was signed, but incurred in preparation for its performance under the contract. For this proposition, the Plaintiff cites *Dolmatch Group, Ltd. v. United States*, 40 Fed. Cl. 431, 439 (1999) (stating "a plaintiff can recover reliance damages as an alternative; this includes expenditures in preparation and part performance.").

The Court believes that the Plaintiff's argument goes too far. The Plaintiff in *Dolmatch Group* sought "to recover expenses incurred while *operating* under the alleged agreement." *Id.* (emphasis added.) Thus, when the passage on which the Plaintiff relies is placed in context, it is clear that *Dolmatch Group* does not say that reliance damages can be awarded for those expenditures made *before* the contract was signed.

The general rule appears to be that reliance damages are limited to those expenses incurred after an agreement has been reached. *See, e.g., Autotrol Corp. v. Contintental*

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[53] The Plaintiff did not seek "restitution" damages. Restitution would not be an appropriate measure of damages because the Plaintiff had not yet conferred any measurable benefit to the United States at the time of termination.

Water Systems Corp., 918 F.2d 689, 695 (7th Cir. 1990); *Moore v. Lewis*, 366 N.E.2d 594, 599 (Ill. App. Ct. 1977); *see also* J.E. Macy, Annotation, *Right to Recover in Action for Breach of Contract, Expenditures Incurred in Preparation for Performance*, 17 A.L.R.2d 1300, Section 7 (1951).

Moreover, this restriction is especially important in cases against the United States. In the Tucker Act, the United States waived its sovereign immunity for breach of express or implied contracts. 28 U.S.C. § 1491. If this Court were to accept the Plaintiff's argument that it can recover, as reliance damages, those expenses incurred before the contract were signed, the Court would blur the distinction between contracts (whether express or implied) and statements that lead to contracts. The Court of Federal Claims lacks authority to award damages for contracts implied at law. *Hercules v. United States*, 516 U.S. 417, 424, 116 S. Ct. 981, 985-86, 134 L. Ed.2d 47 (1996); *Trauma Serv. Group v. United States*, 104 F.3d 1321, 1324-25 (Fed. Cir. 1997). This Court cannot transform any statements made during negotiations into a contractual duty that warrants an award of reliance damages.

Thus, the Court will examine the evidence in support of reliance damages and will exclude any expenses incurred before the contract was signed.

B. Evidence for Reliance Damages

The Plaintiff claims about $1.3 million in expenses. Energy Capital presented evidence of invoices, canceled checks, and/or ledger entries to support its claim that these expenses were incurred in reliance on the AHELP Agreement. This figure includes costs incurred before the AHELP Agreement was signed.

Besides those pre-agreement costs, the Defendant challenged very few items. Before trial began, Energy Capital provided copies of its documentary support to the United States. The United States, in turn, made this information accessible to its accounting expert, David Hisey, and his team. Hisey admits that $754,831.57 was documented as expenses incurred after the contract was signed.

In addition, the Court finds that Energy Capital established other expenses were related to the AHELP Program and were adequately documented. These expenses amount to $121,735.52 for a total amount of $876,567.09. For several expenses, updated information was provided to the United States, but Hisey did not receive the updated information. Hisey was forced to admit, when confronted during cross-examination, that his analysis failed to account for this information. Because the United States challenged these expenses only on the ground that the documentation was insufficient and Energy Capital effectively demonstrated that the documentation was sufficient, the Court will include these expenses in the award for reliance damages. As stated previously, the expenses where the extent of documentation was disputed came to $121,735.52.[54]

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[54] The Court deducted $3,500 for one expense that was paid to a law firm in connection with Energy Capital's efforts to create a program like AHELP for New York State. Other than

Accordingly, as an alternative to the lost profit award, the Court finds that Energy Capital's reliance damages total $876,567.09.[55]

XIII. Conclusion

The Court acknowledges that few cases have awarded lost profits against the United States. Yet, the factual circumstances of this case support such an award. Here, there was a contract of limited duration (3 years), limited amount ($200 million) and for a specific purpose (to finance energy-efficiency improvements in HUD-assisted housing). Further, the market for the service available under the contract, represented by the owners and first mortgagees, was easily identifiable and willing to pay for this service. These facts provide the evidentiary basis for finding that the Defendant's breach caused the loss of profits, that the loss of profits was foreseeable, and that the amount of lost profits was reasonably certain.

Pursuant to R.C.F.C. 54(b), inasmuch as there appears to be no just reason for delay, the Clerk's Office is directed to enter judgment in favor of the Plaintiff in the amount of $8,787,000 on Count 1, the breach-of-contract count.[56]

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this item, the Defendant did not persuasively contest Energy Capital's evidence that the expenses were incurred while performing the AHELP Agreement.

[55] Finally, the Court has also considered whether Energy Capital has documented its costs incurred before the contract was signed. The Court makes this finding in case its holding about the Plaintiff's entitlement to pre-agreement damages is challenged on appeal.

A total of $424,441.82 in pre-agreement expenses were adequately documented. To develop the AHELP Program and to convince HUD to agree to it, Energy Capital retained several independent consultants including Recapitalization Advisors, Housing Partners, Summit Advisors, Energy Investments, and its lawyers. These expenses were adequately documented. Yet, because a portion of the bills from these entities were incurred before the AHELP Agreement was signed, the Court cannot award damages.

[56] Earlier in this litigation, the Court stayed resolution of Count 2, a count alleging deprivation of constitutional rights. The Court orders the Plaintiff to file a status report within 2 weeks of this order proposing whether it is necessary to proceed with this count. If the Plaintiff wishes to proceed, the Plaintiff should specify what form of relief would be available that has not been awarded in this opinion.

The Plaintiff can submit any request for costs after the conclusion of the entire case, that is, after resolution of Count 2.

EDWARD J. DAMICH
Judge

Appendix A: Calculation of Present Value

To calculate the present value using the figures for discount date, discount rate, and sum to be discounted, the Court used different numbers and a slightly different method than the experts.[57] To explain how this calculation was done, the Court will first explain Arcy's method.

Arcy had several steps. First, Arcy found the profit (or loss) for each month.[58] Second, the profit for the 12 months in a year was then summed. The figure for a particular year was presented in a chart in Arcy's expert report, which was admitted into evidence. (The figure for each month was not presented in any form to the Court.) The profit for each year varied. For 9 of the 12 profitable years, the undiscounted profit ranged from just above $2.0 million to just below $2.3 million. The number of loans being repaid mostly caused the fluctuation in profit.

Third, each year's figure was discounted, at a rate of 10.5 percent, to October 1, 1999, a date that Arcy estimated would be the "date of judgment." The final step was that the undiscounted and discounted yearly figures were totaled. Arcy calculated the undiscounted amount as $24.628 million and the discounted amount as $13.692 million.

The Court, admittedly, cannot replicate every step in Arcy's process exactly. Prominently, the Court cannot calculate the profit for each year individually. However, the Court can divide the total profit, which the Court found to be $12.111 million into equal annual amounts. This step is justified because the per-year amounts in Arcy's model were approximately equal.

The Court tested to see whether this approach was fairly accurate. Using a computer spreadsheet program, the Court calculated the present value of $24.628 million with equal annual payments. The purpose of this step was to compare the Court's method (equal annual payments) with Arcy's method (variable annual payments). The Court kept the other numbers in Arcy's calculation constant: 10.5 percent discount rate, and a discount date of October 1, 1999.[59] The Court's method produced a result of $14.29 million. This figure closely approximates Arcy's estimate. Therefore, the Court's method functions as a reliable substitute.

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[57] Arcy and Hisey used the same method. For simplicity, the Court uses Arcy as an example, although a similar analysis could be done with Hisey.

[58] The opinion, in Section VIII.C.3., explains why Arcy's estimate of expenses is too low. Thus, his profits are too high.

[59] The Court also assumed the last loans would be repaid on June 30, 2011. Arcy did not explain when, in 2011, the income stream would stop. The Court selected June 30, 2011 as the midpoint of the year.

Having identified a method, the calculation of present value was relatively simple. The Court assumed that the future income payments would total $12.111 million through June 30, 2011. The Court also assumed that the discount rate was 5.9 percent and that the date of discount was August 21, 2000. This results in a figure of $9.127 million.

Finally, for sake of completeness, the Court also calculated the present value when the discount rate was 10.5 percent. As explained in the opinion, this discount rate is based on an alternative finding. The present value under these circumstances is $7.444 million.

The following chart presents this information.

Calculation of Present Value					
Line	Annual Amounts	Discount Rate	Date of Discount	Sum for Discounting (millions)	Present Value (millions)
1	variable	10.5	Oct. 1, 1999	24.628	13.692
2	equal	10.5	Oct. 1, 1999	24.628	14.29
3	equal	5.9	Aug. 21, 2000	12.111	9.171
4	equal	10.5	Aug. 21, 2000	12.111	7.444

Comparing lines 1 and 2 shows that although the Court's method is more than 95 percent accurate, the Court's method serves to inflate the present value by about 4 percent. The figures in lines 3 and 4, therefore, should be reduced by a corresponding amount. When $9.127 million is reduced, the result is $8.787 million and when $7.444 million is reduced, the result is $7.132 million.

Adjusting Present Value	
True Method	13.692
Court's Method	14.290
Ratio (true over court)	0.958
Line 3 from previous chart	9.171
After Ratio is applied	8.787
Line 4 from previous chart	7.444
After Ratio is applied	7.132